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THE EFFECT OF RANDOM VARIATIONS OF RADIOSONDE DATA ON THE PREDICTED FLIR PERFORMANCE CALCULATED BY THE PROGRAM UFLR

by

Rodolfo Reategui

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Thesis Advisor: Edmund A. Milne

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The Effect of Random Variations of Radiosonde Data on the Predicted FLIR Performance Calculated by the Program UFLR

by

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Submitted in partial fulfillment of the requirements for the degree of

MASTER OF SCIENCE IN SYSTEMS ENGINEERING
(ELECTRONIC WARFARE)

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ABSTRACT

The lack of correlation between the airborne Forward Looking Infrared Detector predicted performance by the program UFLR and the actual performance due to meteorological fluctuations was examined. Calculated performances for the detection, classification and identification of four surface targets using actual radiosonde profiles were compared to the performances obtained using radiosonde data affected by random atmospheric variations of pressure, temperature and relative humidity. A total of 192 performances were created using this method. A visual display and a statistical analysis of the actual and simulated performances was performed. Error margins were determined in the predicted detection ranges for height levels of 1,500 ft., 5,000 ft. and 10,000 ft.. It was also determined that the FLIR performance may be degraded up to 10 nautical miles for a height level of 5,000 ft., and up to 12 nautical miles for a height level of 10,000 ft. due to the random atmospheric variations.

TABLE OF CONTENTS

LIST OF FIGURES

I. INTRODUCTION

In the recent years, Naval surveillance has been improved by the use of airborne threat warning receivers employing scanned IR detectors for purposes of military intelligence, maritime traffic control, to watch illegal activities, and for the prevention of oil pollution on the sea. IR reconnaissance overcomes the limitation of sensors in the visible spectrum being usable only during daylight hours. The advances in microprocessors and support components, together with new methods of signal and data processing have allowed the realization of reliable IR systems. The practicality of such systems is supported by the well developed sensor technology acquired by the Forward Looking IR Receiver (FLIR) system.

With present technology, a FLIR system may be designed and evaluated using computer aids. The system performance may be modeled and tested giving an output in a form which can be directly related to the requirements. Unfortunately, due to the complex nature of the atmosphere, the result of this modelling may often be in error. In general, the performance of an electro-optical system is degraded and often limited by atmospheric propagation effects such as absorption and scattering due to atmospheric gases, particles and hydrometeors or atmospheric turbulence.

As part of the IR system design activity, it is necessary to run trials in order to achieve the performance requirements. Over the past several years, various FLIR performance prediction codes have been developed by the Naval Ocean Systems Center and later revised by the Naval Environmental Prediction Research Facility and also by a group at the Naval Postgraduate School. As a result, it was found that the correlation between the predicted and the actual performance has been poor at best, presumably because of meteorological fluctuations in both time and position.

The objective of this research is the comparison of the predicted FLIR performance calculated by the program UFLR for different radiosonde profiles affected by random atmospheric variations.

The complete process includes three stages:

- The generation of simulated radiosonde data representing random atmospheric variations performed by the computer program UFLRATM. Radiosonde profiles for height levels from 0 to 28,000 feet were dithered about the actual values of the pressure (millibars), temperature (degrees) and relative humidity (percent), multiplied by a Gaussian random number generator (0,1), as shown:

PRES = PR + SIGMAP * R

TEMP = TE + SIGMAT * R

RELH = RE + SIGMARH * R

where:

PRES = dithered pressure at a specific elevation.

TEMP = dithered temperature at a specific elevation.

RELH = dithered relative humidity at a specific elevation.

SIGMAP = estimated standard deviation of the pressures in radiosonde measurements for a given elevation.

SIGMAT = estimated standard deviation of the temperatures in radiosonde measurements for a given elevation.

SIGMARH = estimated standard deviation of the relative humidities in radiosonde measurements for a given elevation.

R = Gaussian variant.

The created environmental profiles serve as the input to the UFLR program.

- The use of the computer program UFLR to provide a capability to assess the effects that environmental conditions have on the propagation of IR radiation from a target and the display of these effects in terms of a range at which a FLIR system could detect that target with a 50% probability at a specified flight altitude. The different input atmospheric profiles will give different predicted performance values for the same target. Up to four target parameters will be processed at the same time.

- Further work is continuing into the analysis of the variance of the predicted performance compared to the variance of the measured performance. Visual information of these is provided by the plot of the UFLR program output, using the computer program UFLRPLT.

II. THEORY SECTION

A. FLIR FUNDAMENTALS

1. General

When early airborne thermal imaging systems were pointed down to the sea surface and used to view objects in the near horizontal plane, the term FLIR or Forward Looking Infrared was introduced. FLIRs operate in the 3-5 and 8-14 micrometer wavelength ranges, and achieve the detection of the radiance distribution of a scene under observation by scanning the field of view. A typical FLIR system block diagram is shown in Figure 2.1.

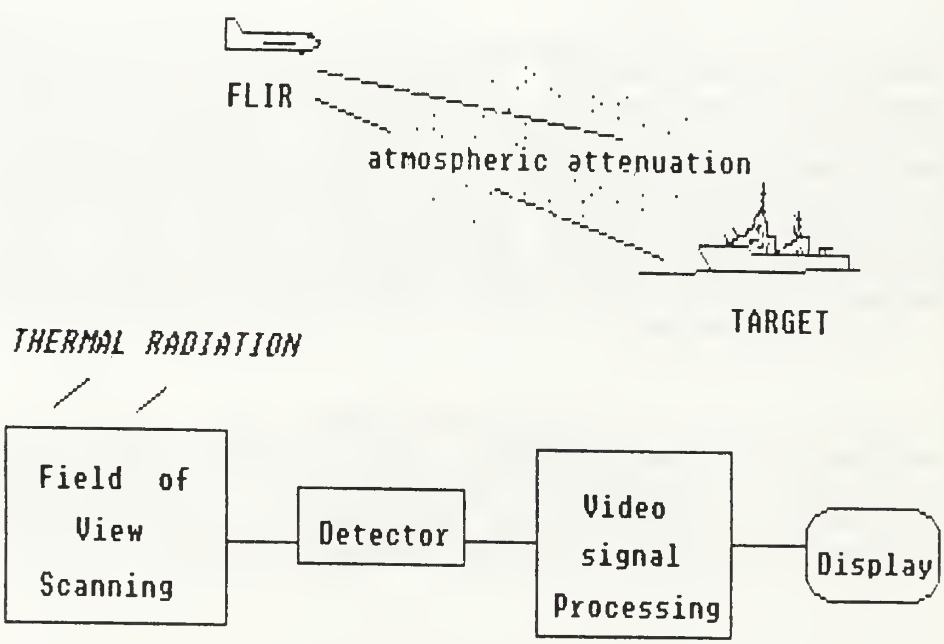


Figure 2.1. FLIR System Block Diagram

The incident electromagnetic field from the scene produces a disturbance within the detector proportional to the energy transported by the field. The electromagnetic field is converted to an electrical signal by the FLIR system and then processed for a video display. The detector is characterized by two parameters: the Responsivity (R), which is the gain of the detector expressed in volts of output signal per watt of input signal; and the specific Detectivity (D) which is the detector output signal-to-noise ratio for one watt of input signal, normalized to a unit sensitive detector area and a unit electrical bandwidth. [Ref. 1]

$$R = V_s / (H * A_d) \qquad \text{(volt/watt)}$$

$$D = (R / V_n)(A_d \; \Delta\nu)^{1/2}$$

where:

V_s = detector signal voltage

H = distribution of irradiance on the detector

A_d = detector area

V_n = rms noise voltage in the detector bandwidth

$\Delta\nu$ = detector bandwidth

The radiation received from a target is compared with that of an equivalent area of the background. The detectability of that target by a FLIR is determined by the distribution of temperature over its surface in contrast with the temperature distribution of the background.

2. Minimum Detectable Temperature Difference

The minimum detectable target-to-background temperature difference indicates the FLIR performance. This is often referred to as the Minimum Detectable Temperature Difference (MDTD). For the calculation of a detection range, it is necessary to know the MDTD of the FLIR system as a function of range.

For a target assumed as a square against a large uniform background, the average signal-to-rms noise ratio per frame per line in the image is: [Ref. 1]

$$SNR = \frac{\overline{I(X,Y)}\,\Delta T}{NETD\left[\dfrac{\text{Displayed Noise Bandwidth}}{\text{Equivalent Filter Noise Bandwidth}}\right]^{1/2}}$$

where:

$\overline{I(X,Y)}$ = image of the square target normalized to unity amplitude

ΔT = target-to-background temperature difference = $T_t - T_B$

NETD = Noise equivalent temperature difference, which is the ability of the FLIR system to discriminate small signals in noise.

The NETD is given by:

$$NETD = T / (V_s / V_n)$$

where:

V_s = Signal Voltage

V_n = Noise Voltage

The Perceived signal-to-noise ratio $(S/R)_p$ is necessary to achieve a detection and is expressed by:

$$(S/N)_p = (S/N)_t \, [Teff/MDTD]$$

where:

$(S/N)_t$ = experimentally determined SNR for 0.5 probability of detection

Teff = Effective Target-to-background temperature difference affected by the total atmospheric transmittance (τ)

Teff = $\tau * T_{actual}$

The MDTD of a FLIR system changes depending upon atmospheric conditions influence on radiant exchanges (i.e., sun, sky, clouds), and with thermal convection between the sea and the air. [Ref. 1]

$$MDTD = \frac{r_s 1.5\sqrt{2}\, MRTD}{\overline{I(X,Y)}}$$

where:

MRTD = minimum resolvable temperature difference

r_s = overall system Modulation Transfer Function

Since each FLIR system has its own MDTD, it is preferable to consider a previously defined value for modeling purposes, designed on the basis of blackbody-sea background.

B. IR RADIATION THROUGH THE ATMOSPHERE

To reach the FLIR detector, the radiant flux from the target has to pass through the atmosphere. The earth's atmosphere is filled with absorbing agents, components of the

atmosphere which extract energy from the supply of radiation. Also, the small particles suspended in the atmosphere cause scattering and emission of the IR radiation in all directions.

At a specific wavelength, and for a specific atmospheric state, the atmospheric transmittance (τ) is given by the Lambert-Beer law:

$$\tau = \exp\{-\mu Z\}$$

where:

Z = path length or range

μ = linear extinction coefficient

$\mu = \mu_{ma} + \mu_{ms} + \mu_{aa} + \mu_{as}$

μ_{ma} = molecular absorption

μ_{aa} = aerosol absorption

μ_{ms} = molecular scattering

μ_{as} = aerosol scattering

1. Absorption

Water vapor, carbon dioxide and ozone are the main atmospheric components which absorb the infrared radiation. FLIR performance is seriously reduced by rain, snow, fog, clouds, haze and smoke. These effects are extremely difficult to predict because they depend upon particle size, density, location, and discontinuous altitude distributions.

2. Scattering

Scattering is produced by molecules of the air and aerosol particles suspended in it.

Maritime aerosols are composed mainly of sea salt due to the evaporation of sea spray. Scattering depends on the size of these particles. The concentration and size distribution of the particles are strongly dependent on wind speed and relative humidity. The particle size number density decreases rapidly above 500 meters altitude.

Resonance occurs when the wavelength of the radiation matches the radius of the particle.

The size parameter $(\alpha) = 2\pi\ r / \lambda$

where:

$r =$ radius of the particle

$\lambda =$ wavelength

Resonance occurs when $r / \lambda = 7 / 2\pi \approx 1$

3. Refractivity

Refractive index (n) describes the change in the propagating characteristics of the radiation due to the medium.

$n = c/v$

where:

$c =$ velocity in the free space

$v =$ velocity in the medium

Refractive index (n) becomes a complex quantity because a phase shift occurs at the interaction of the wave with the medium, changing speed of propagation. The real part describes the phase velocity of the wave, and the imaginary part is the extinction coefficient and represents the wave

absorption at the resonant frequency. The refractive index of the atmosphere depends on molecular resonance, and can be expressed by:

$$n - 1 = 77.6p / T \{1 + 0.0075 / \lambda^2\} \times 10^{-6}$$

where:

λ = wavelength in micrometers

p = pressure in milibars

T = temperature in °C

The refraction (n-1), is directly proportional to the pressure and inversely proportional to the temperature. Pressure and temperature fluctuations produce variations on the index of refraction of the atmosphere.

4. Turbulence

The atmospheric turbulence also affects the performance of a FLIR system by decreasing the resolution. The modulation transfer function (MTF), which is the modulus of the optical transfer function (OTF) is highly affected by the atmospheric turbulence.

The parameter of interest for the optical properties of the atmosphere due to the turbulence is expressed by the index of refraction turbulence structure constant (C_n).

$$C_n = 79 \times 10^{-6} (p / T^2) C_t$$

where:

C_t = temperature turbulence structure constant

In order to know the vertical distribution of moisture and aerosols on the environment, a radiosonde reading is required.

The vertical profiles of temperature, pressure and relative humidity are used as input to the UFLR program.

The predicted UFLR performance obtained allows one to estimate the range in nautical miles for the detection, classification and identification of a particular surface target by an airborne FLIR system for different height levels.

C. OPERATIONAL PERFORMANCE MODELING

1. Definitions

The operational performance for FLIRs is measured in terms of Detection, Classification and Identification of different size targets. The size of the image on the display screen (number of picture elements) depends on the range to the given target and the focal length of the optics.

a. Detection

To achieve a Detection, at least one picture element above the threshold is required. The performance is described in terms of the Noise Equivalent Temperature Difference (NETD).

b. Classification

A Classification is achieved when the detected image allows one to discern the class or type of the target.

c. Identification

A target is identified when the image is composed of large number of pixels and allows one to identify the target with great detail.

d. Probability of Detection

The probability of detection (just a target's presence), for a FLIR can be expressed in the terms of the perceived signal-to-noise ratio $(S/N)_p$, by [Ref. 2]:

$$P(det) \quad = \quad Q\,[(S/N)_p - (S/N)_t]$$

where:

Q is the standard Normal distribution

$$Q(x) = 1/2\pi \int_{-\infty}^{x} e^{(-t^2/2)} dt$$

$$(S/N)_p = (S/N)_t * \quad Teff/MDTD$$

The Detection with 0.5 probability occurs at a range where:

$$(S/N)_p = (S/N)_t \quad ; \text{ or } \quad P(det) = Q\,[0.0] = 0.5.$$

At this range: Teff = MDTD.

The UFLR program considers the targets as rectangular blocks of fixed dimensions and will display detection ranges for the following four target sizes:

TYPE	LENGTH	HEIGHT
Destroyer "Coontz" class ("Sovremenny")	155 m.	16 m.
Frigate "Knox" class ("Krivak")	130 m.	14 m.
Corvette "Pegasus" class ("Osa")	40 m.	8 m.
Surfaced SS	20 m.	5 m.

And for the following flight altitudes: 500 Ft., 1000 Ft., 1500 Ft., 2000 Ft., 2500 Ft., 3000 Ft., 3500 Ft., 4000 Ft., 5000 Ft., 7500 Ft., 10000 Ft., 15000 Ft., 20000 Ft., 25000 Ft. and 30000 Ft.

2. UFLR Program Description

The UFLR program was designed for the prediction of the FLIR performance in terms of flight altitude versus maximum range for detection, classification and identification of various sized surface targets, as a part of the Tactical Environmental Support System (TESS).

The program consists of the following subroutines:

a. Profile Subroutine

This subroutine creates profiles of height, absolute humidity, electro-optic m-units and molecular absorber density. It requires as input data: the atmospheric pressure (mb), temperature (^{o}C) and relative humidity (%),

for the preselected radiosonde height levels, the radiosonde launch height, and the pressure (mb) at that height. See Figure 2.2)

b. Aerosol Extinction Coefficient Subfunction

It computes the aerosol extinction coefficient for a particular height as a function of surface wind speed (m/sec), relative humidity, horizontal visibility (Km), altitude (Km) and wavelength (μm). The transmittance model included as a part of the UFLR program was developed by Katz B. (1979). (See Figure 2.3)

c. Effective Earth Radius Subfunction

It computes the effective earth radius. IR propagation is considered in a cylindrical coordinate frame, ignoring all earth curvature and refractive effects. The atmosphere is assumed to consist of concentric, stratified layers. The refractive index is considered to vary linearly with altitude. It requires as input data the height array, the aerosol extinction coefficient array and the number of elements of both. (See Figure 2.4)

d. Transmittance Subroutine

This subroutine computes an integrated molecular absorber amount and an integrated extinction coefficient for each height level along a set of predefined rays preselected to provide adequate flight altitude/range resolution for the FLIR field of view.

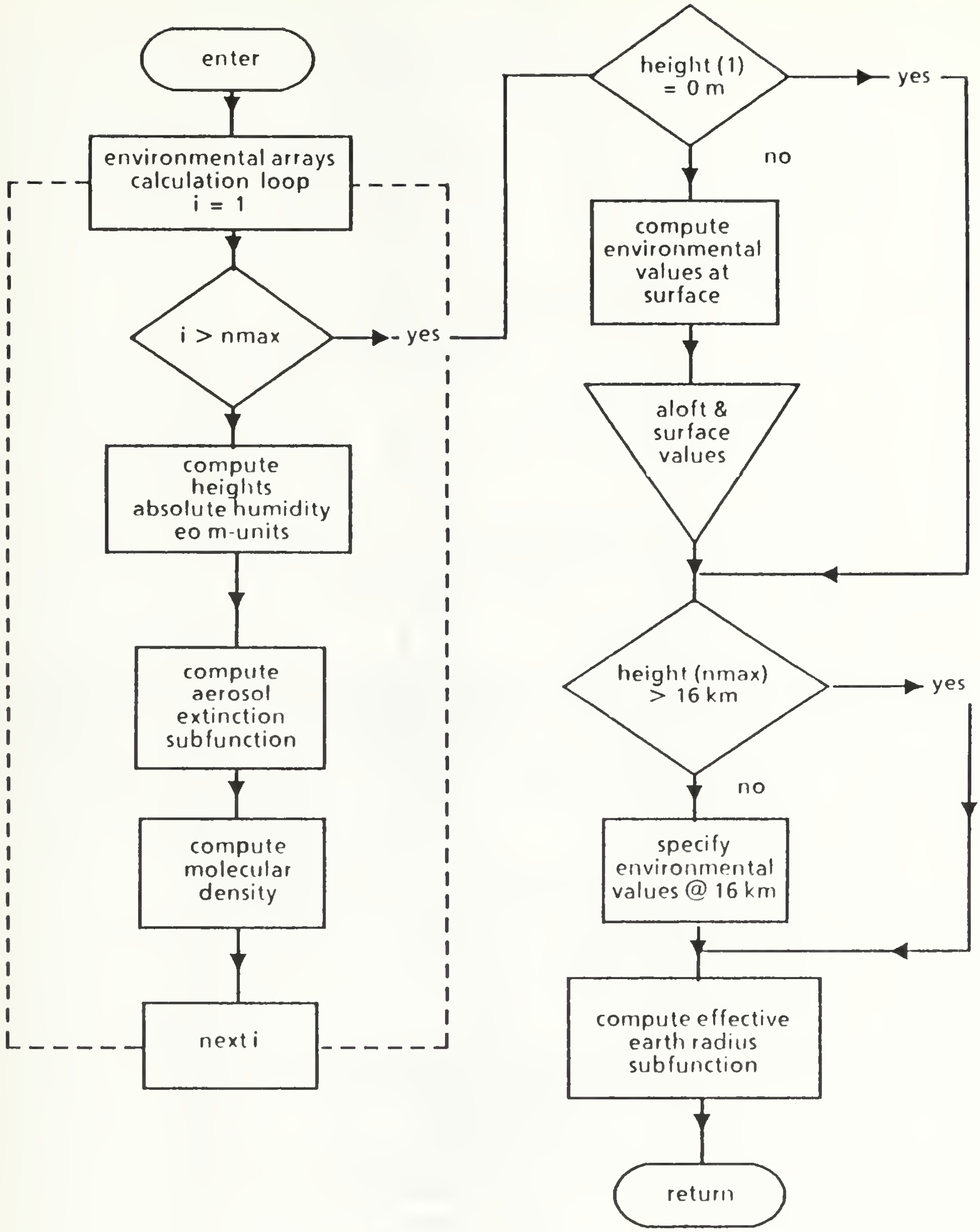


Figure 2.2 Profile Subroutine Flowchart

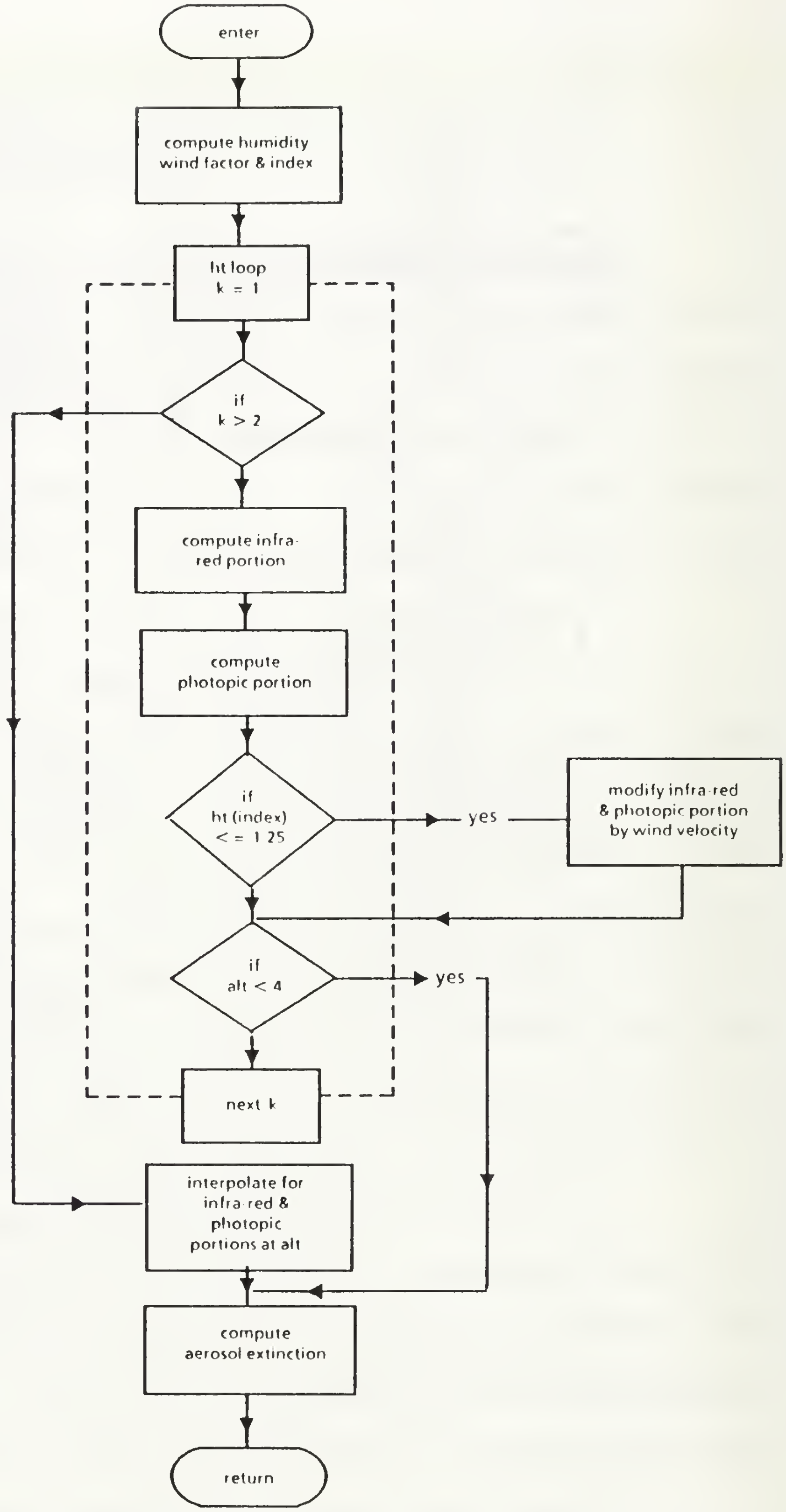


Figure 2.3 Aerosol Extinction Coefficient Subfunction Flowchart

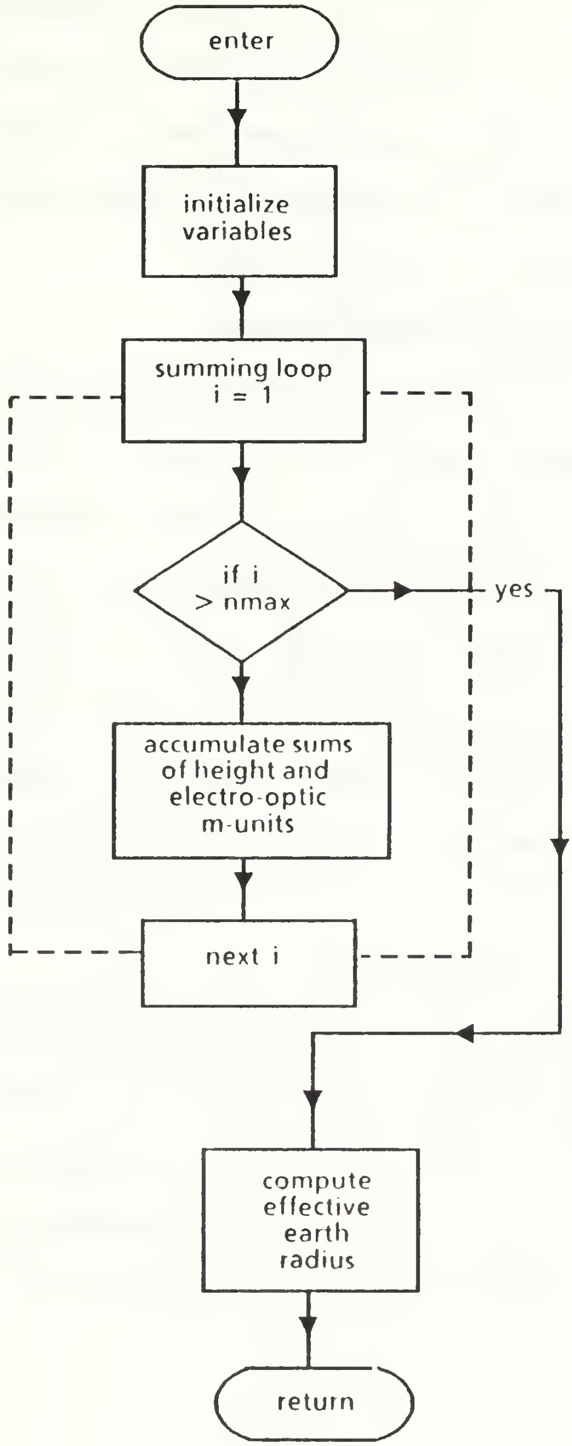


Figure 2.4 Effective Earth Radius Subfunction Flowchart

After these computations, the transmittance is calculated for each of the flight altitude/ray pair.It requires as input: the selected altitudes array, the selected ray launch angle array, an accumulated slant-path range over the incremental path of integration and the total band average molecular extinction. (Figure 2.5)

e. Integration Subroutine

This subroutine integrates the molecular absorber density or aerosol extinction along the ray path. The following inputs were required by this subroutine: Heights of lower and upper integration bounds, a ray's launch angle, a molecular absorber density array, aerosol extinction coefficient array, an interpolated value of molecular density or aerosol extinction, the effective earth radius and integration increments of range over the slant-path. (Figure 2.6)

f. Index Subfunction

This auxiliary subfunction finds the first element of an array greater than a specified value and determines the corresponding array index number. It uses as input: the environmental height array, an integration height and the specified environmental height. (Figure 2.7)

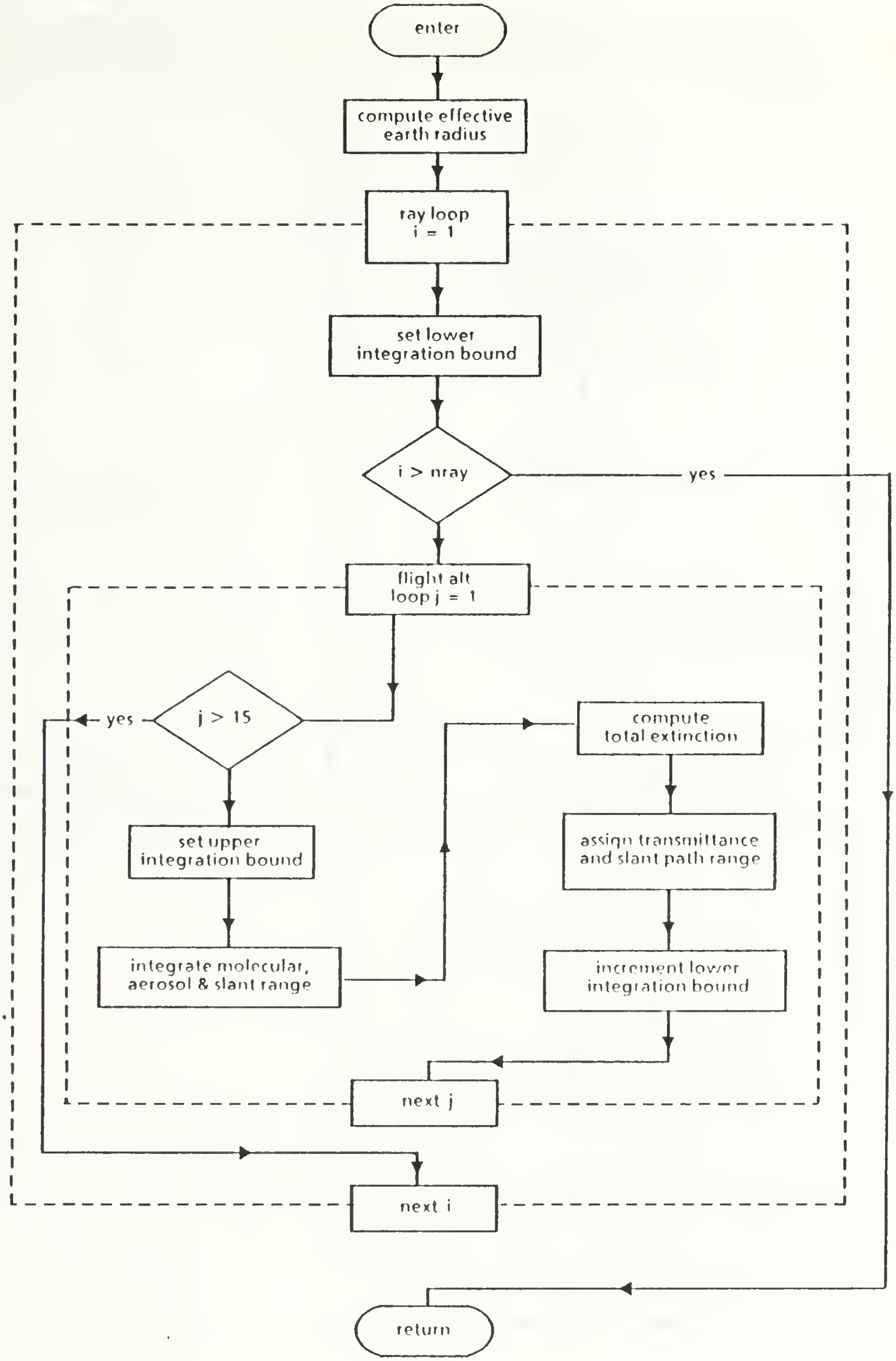


Figure 2.5 Transmittance Subroutine Flowchart

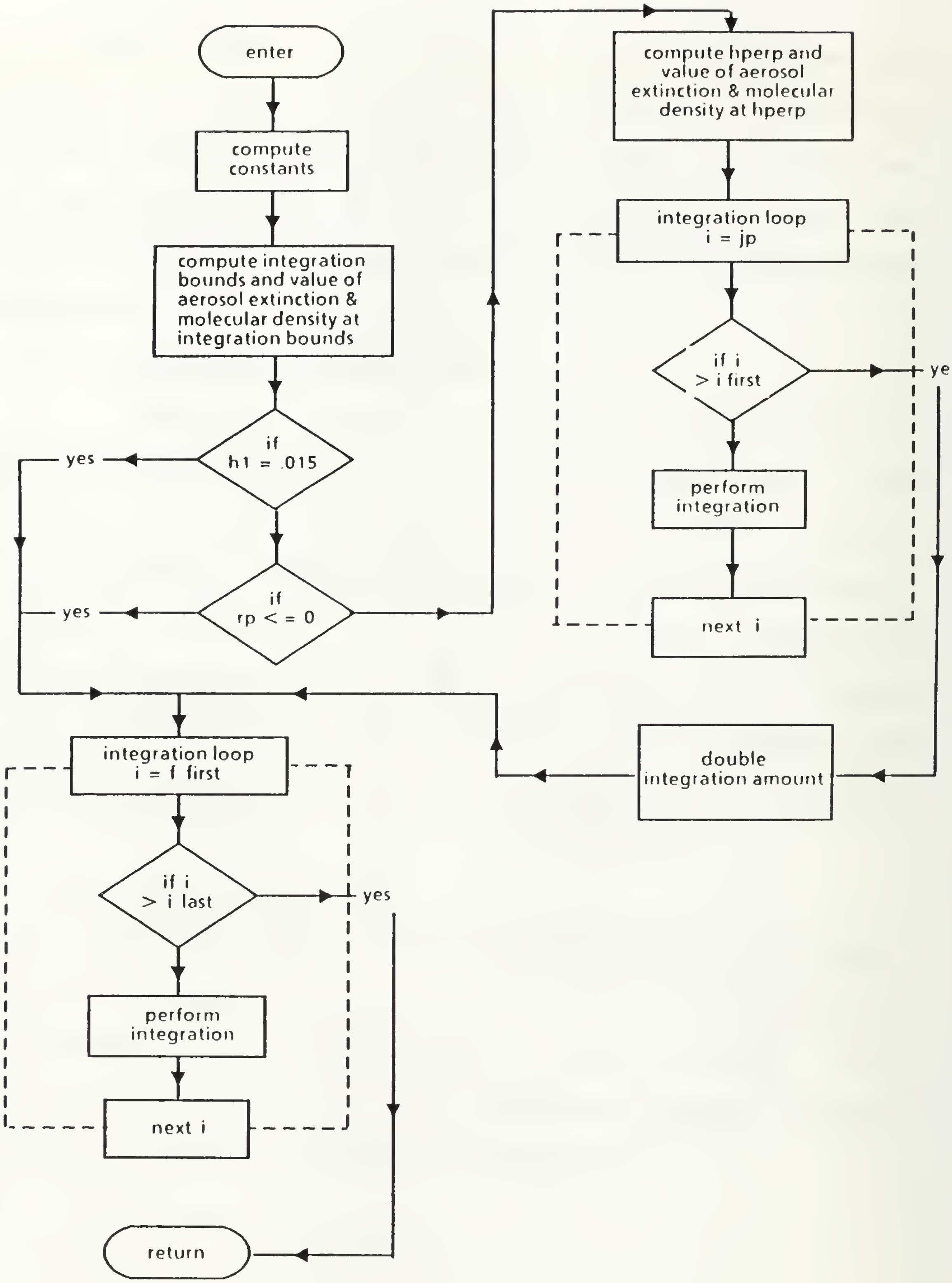


Figure 2.6 Integration Subroutine Flowchart

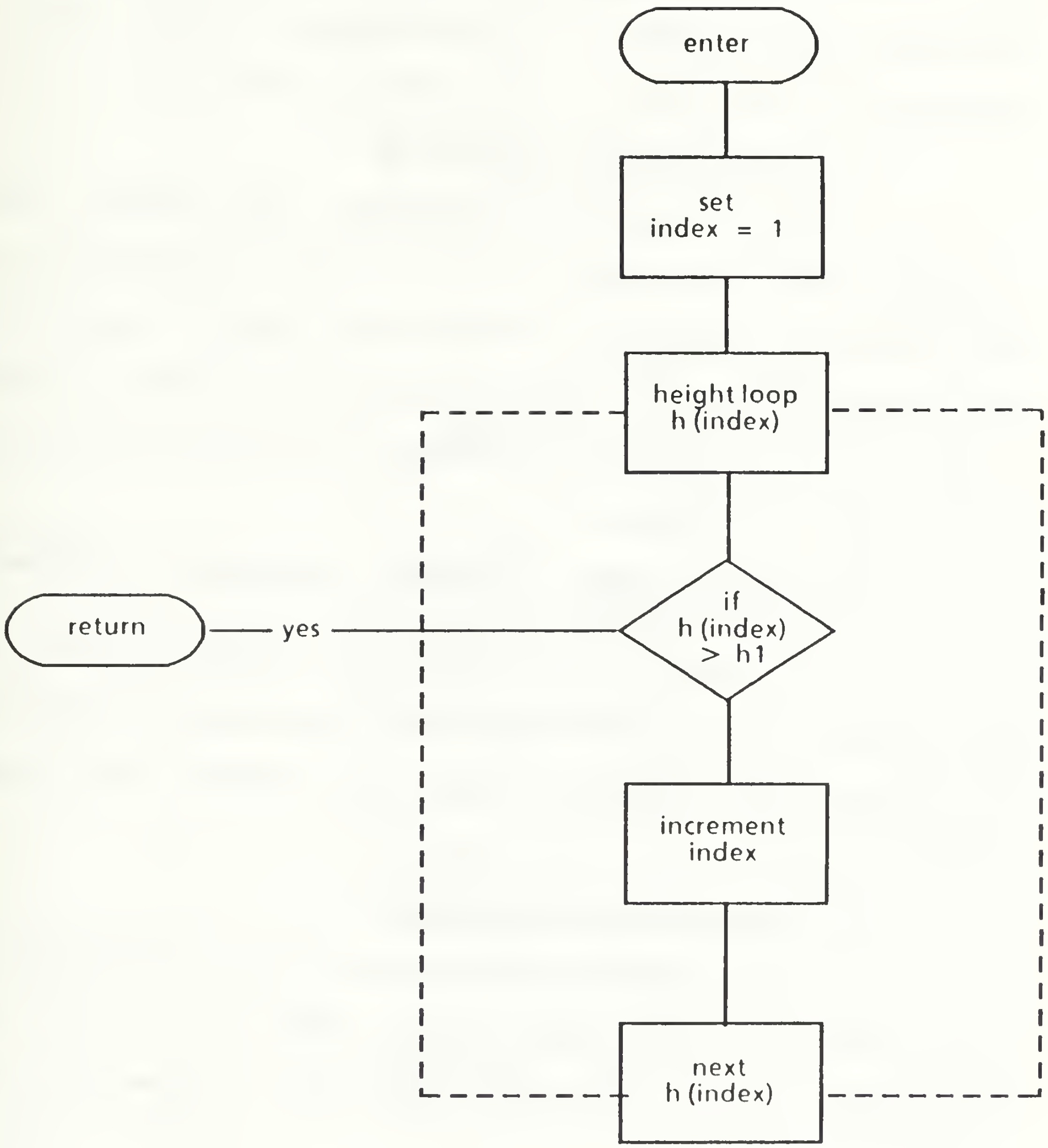


Figure 2.7 Index Subfunction Flowchart

g. Power Law Subfunction

It is used to interpolate a value between the elements of an array. This subfunction requires as input: the aerosol extinction coefficient array, the molecular absorber density array, an environmental height array, an integration height and an array index number.

h. Taylor Series Subroutine

This subroutine computes the Taylor series expansion about the midpoint of an integration interval, thus determines an incremental integration amount. The input to this subroutine were the left and right height interval limits, the corresponding integrand values and the effective earth radius. (Figure 2.8)

i. Total Band Average Molecular Extinction Subfunction

It computes the molecular absorber density and the total band averaged molecular extinction equation by calculating the transmittances for several slant paths. (Figure 2.9)

j. Performance Subroutine

This subroutine calculates a 0.5 probability of detection of a particular sized target by a FLIR system expressing it in terms of range for a specific flight altitude.

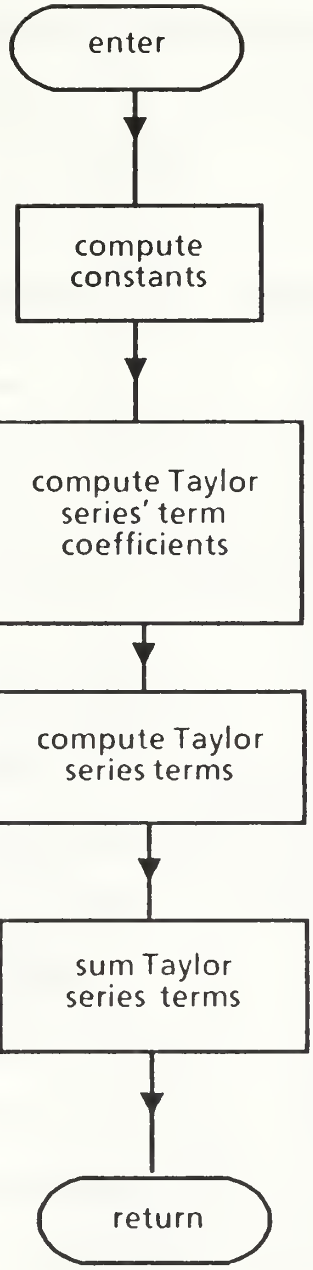


Figure 2.8 Taylor Series Subroutine Flowchart

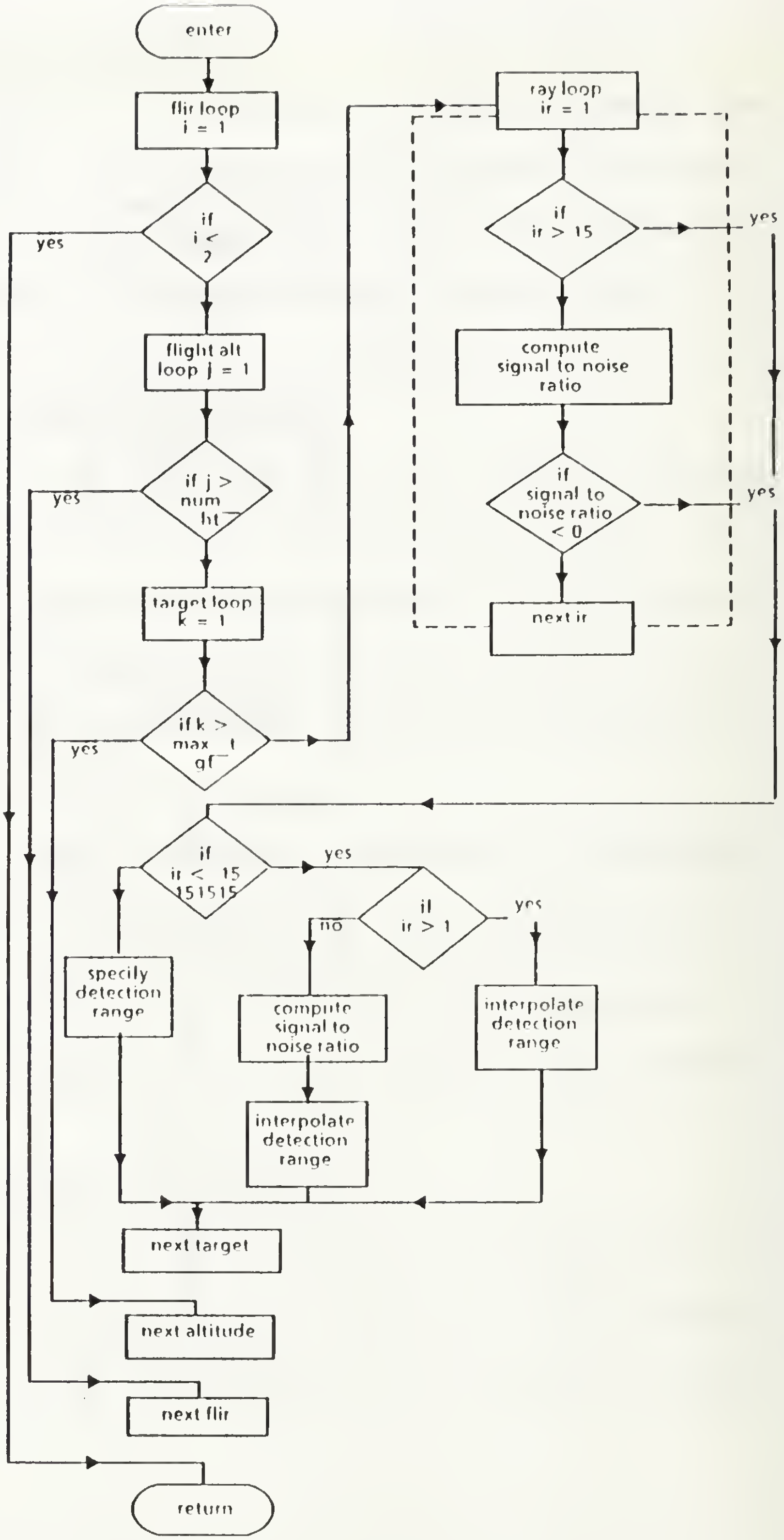


Figure 2.9 Total Band Average Molecular Extinction Subfunction Flowchart

This subroutine requires as input: the selected flight altitude array, the number of targets, the dimensions of the targets (length and height), the target to background temperature differences, the minimum detectable temperature difference, the transmittance array, the slant-path array and a detection range.

k. Minimum Detectable Temperature Difference Subfunction

It computes the MDTD associated with the FLIR/target combination. This subfunction has as input the length and height of the target, the slant-path range from the FLIR to the target and the FLIR system characteristics. (Figure 2.10)

l. Display Subfunction

This subfunction displays the detection, classification and identification ranges for each flight altitude. It requires as input: the surface wind velocity and the horizontal visibility.

D. STATISTICAL ANALYSIS

1. Test for Normality

The actual atmospheric profiles were dithered for different combinations of pressure, temperature and relative humidity standard deviations simulating random atmospheric variations.

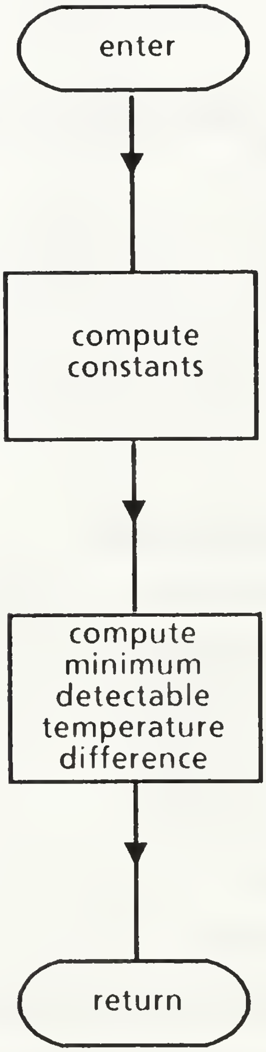


Figure 2.10 Minimum Detectable Temperature Difference (MDTD) Subfunction Flowchart

Processed by the UFLR program, the dithered profiles gave different performances for each of the four target sizes (range vs flight altitude). The population distribution of the data collected was analyzed using the MINITAB program of the Naval Postgraduate School's main frame. A numerical summary of the results was completed.

2. Difference Between Means

a. Single Factor Analysis of Variance

When the output of the UFLR program was graphically displayed by the program UFLRPLT, the variance of the dithered performance was given in a form of spread curves within the actual predicted performance.

After determining that the population distribution of the dithered profiles was normal, the FLIR predicted performance for the actual radiosonde data was compared to the performance obtained for the simulated data by applying a one-way analysis of variance (ANOVA), to the data sampled from both populations.

An F-test statistic at a 0.05 significance level (α), was performed to determine if both populations had a common mean value (actual mean = simulated mean).

b. Difference Between Means

A second analysis was performed by taking three testing points (three different height levels), and applying a two-sample t test. A 95% confidence interval for the difference between the two means was calculated.

For a normal population, the probability of an observed value within three standard deviations (3σ) of the mean (μ) is equal to 0.9974. By using the standard deviation values obtained from the experimental section, one could estimate a spread in nautical miles within which the range for detection, classification and identification of the same target about the predicted values for a selected operational flight altitude could be located with a given level of confidence.

III. EXPERIMENTAL PROCEDURE

A. THE FLIR PERFORMANCE PREDICTION BY THE UFLR MODEL

The UFLR model used for this research was the P.C. version by John Cook (September 1987), which was modified for the Naval Postgraduate School main frame computer system (Appendix 1).

The inputs for the UFLR model are the radiosonde data (pressure, temperature and relative humidity), aerosol parameters, FLIR system parameters, target parameters and the effective temperature differences (ΔT).

It is important to mention that the FLIR system parameters used are not those of operational systems, since this is classified information.

The output of the model is expressed in terms of flight altitude (feet) versus maximum range (nmi) for the detection, classification and identification of different sized targets.

The output can be graphically displayed by plotting the above values. The graph in Figure 3.1 shows an example of a typical UFLR output. This graph consists of three curves corresponding to the identification, classification and detection for each target.

TARGET	1			2			3			4		
Alt Feet	Det	Class (nmi)	ID	Det	Class (nmi)	ID	Det	Class (nmi)	ID	Det	Class (nmi)	ID
500	7.2	1.6	0.7	9.7	3.0	1.3	12.5	5.3	2.5	15.2	8.7	4.5
1000	7.1	1.6	0.6	9.6	3.0	1.3	12.3	5.3	2.5	15.0	8.7	4.5
500	7.3	1.6	0.6	9.9	3.0	1.2	12.6	5.3	2.5	15.4	8.8	4.6
2000	7.5	1.5	0.7	10.2	3.0	1.2	13.2	5.4	2.5	16.1	9.0	4.6
2500	7.5	1.4	0.7	10.3	3.0	1.2	13.4	5.4	2.4	16.4	9.1	4.6
3000	7.7	1.4	0.7	10.5	2.9	1.2	13.6	5.5	2.3	16.7	9.1	4.6
3500	7.8	1.5	0.7	10.7	2.8	1.3	13.9	5.4	2.3	17.1	9.2	4.6
4000	7.9	1.5	0.7	10.9	2.8	1.3	14.2	5.5	2.3	17.5	9.3	4.7
5000	8.3	1.6	0.0	11.4	2.7	1.3	15.0	5.6	2.3	18.6	9.6	4.5
7500	9.3	1.6	0.0	13.1	2.9	1.4	17.4	5.4	2.6	22.0	10.1	4.4
10000	10.4	1.7	0.0	14.6	3.2	0.0	19.6	5.4	2.6	25.1	10.5	4.5
15000	12.3	0.0	0.0	16.7	3.2	0.0	23.0	5.8	2.7	29.8	10.4	5.1
20000	13.3	0.0	0.0	18.8	0.0	0.0	25.1	6.2	0.0	33.0	10.4	5.2
25000	14.3	0.0	0.0	21.0	0.0	0.0	28.0	6.3	0.0	37.4	10.9	5.3
30000	15.0	0.0	0.0	23.1	0.0	0.0	31.3	6.4	0.0	41.7	11.5	5.3

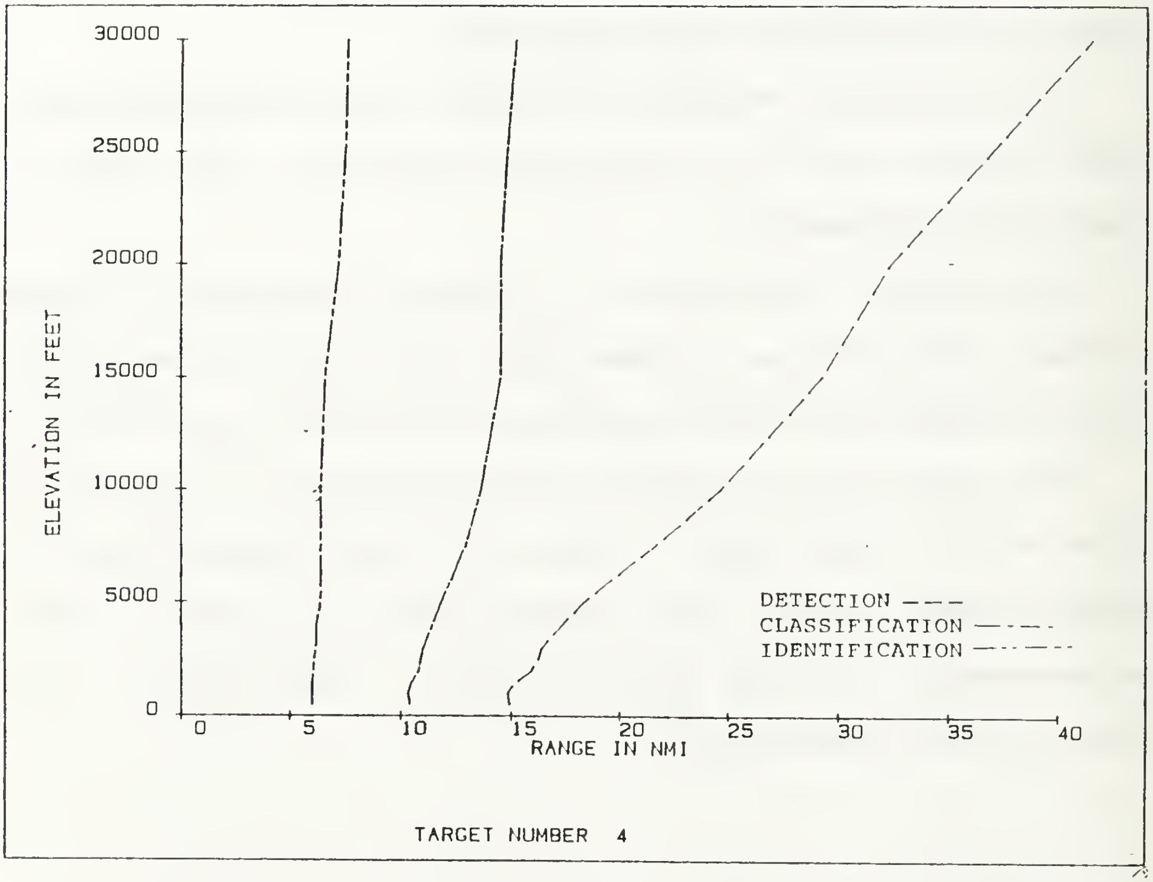


Figure 3.1. Typical UFLR output

B. GENERATION OF ATMOSPHERIC DATA AFFECTED BY RANDOM VARIATIONS

The generation of radiosonde data affected by random atmospheric variations was performed using the computer program UFLRATM (Appendix 2).

The actual data consisted of eight radiosonde profiles taken along the California coast (Latitude = 36° N, Longitude = 122° W), within 3 days in the spring of 1989.

The pressure (in millibars), temperature (in degrees), and relative humidity (in percentage), were extracted from each profile corresponding to the height levels from sea level to 28,000 ft. (for every 1,000 ft.). The eight extracted files were named: cal1, cal2, cal3, cal4, cal5, cal6, cal7 and cal8 (see profiles in Appendix 3). The actual values of pressure, temperature and relative humidity of the 3 day radiosonde data (the 8 profiles), were averaged and observed level by level, in order to determine coherent standard deviation values for the simulation of more atmospheric profiles about the actual data.

The following results were obtained:

	Max S.dev.	Min. S.dev
pressure	3.49	1.20
temperature	4.01	0.77
rel. humidity	22.5	7.08

Using the information above, the following standard deviation values were selected for the pressure (SIGMAP),

temperature (SIGMAT), and relative humidity (SIGMARH):

SIGMAP = 1.5, 2.5

SIGMAT = 1.0, 2,0, 4.0

SIGMARH= 8.0

The values above, were selected considering that the available data was very small, from a short period of time and for a particular location. The objective of this thesis was the performance of the FLIR system at slightly different times and locations, and this simulation of the variation of the environmental parameters was based on the limited set of radiosonde data available.

The range of the pressure standard deviations (SIGMAP), was within the range actually observed, same for the temperature (SIGMAT); But, in the case of the relative humidity (SIGMARH), the only value for which the simulated data did not appear unreasonable was used.

The standard deviation values were combined in all possible ways (six different combinations), as shown:

COMBINATION	SIGMAP	SIGMAT	SIGMARH
A	2.5	1.0	8.0
B	2.5	2.0	8.0
C	2.5	4.0	8.0
D	1.5	1.0	8.0
E	1.5	2.0	8.0
F	1.5	4.0	8.0

The eight extracted files cal1,cal2, cal3,...,cal8; were input to the program UFLRTRAM which dithered the actual values simulating the random atmospheric variations by using a Gaussian random number generator (0,1), multiplied by the six different combinations of standard deviation values of SIGMAP, SIGMAT and SIGMARH.

The UFLRATM program was designed for ten (10) replications for each of the 6 different combinations. This gave a total of 60 different dithered profiles (six groups of ten) just for that particular file, and a grand total output of 480 different dithered profiles (48 output files), for the 8 California coast atmospheric files. These output files (see examples Appendix 4), were named as follows:

FILE	COMBINATION	OUTPUT FILE
cal1	A	cal 1A
	B	cal 1B
	C	cal 1C
	D	cal 1D
	E	cal 1E
	F	cal 1F
cal2	A	cal 2A
	B	cal 2B
	C	cal 2C
	D	cal 2D
	E	cal 2E
	F	cal 2F
cal3	A	cal 3A
	B	cal 3B
	C	cal 3C
	D	cal 3D
	E	cal 3E
	F	cal 3F

FILE	COMBINATION	OUTPUT
cal4	A	cal 4A
	B	cal 4B
	C	cal 4C
	D	cal 4D
	E	cal 4E
	F	cal 4F
cal5	A	cal 5A
	B	cal 5B
	C	cal 5C
	D	cal 5D
	E	cal 5E
	F	cal 5F
cal6	A	cal 6A
	B	cal 6B
	C	cal 6C
	D	cal 6D
	E	cal 6E
	F	cal 6F
cal7	A	cal 7A
	B	cal 7B
	C	cal 7C
	D	cal 7D
	E	cal 7E
	F	cal 7F
cal8	A	cal 8A
	B	cal 8B
	C	cal 8C
	D	cal 8D
	E	cal 8E
	F	cal 8F

C. INPUT OF RADIOSONDE DATA TO THE UFLR PROGRAM

1. Input of Actual Radiosonde Data to the UFLR Program

The extracted files cal1, cal2, cal3, cal4, cal5, cal6, cal7, and cal8, without any modification, were input to the UFLR program.

The predicted FLIR performances obtained from this actual data for the detection, classification and identification of a surfaced submarine (target No. 1), a missile corvette (target No. 2), a frigate (target No. 3) and a destroyer (target No. 4), served as the reference for further comparison purposes (appendix 5).

2. Input of Radiosonde Data Affected by Atmospheric Variations

The UFLR program was modified in order to process the dithered profiles obtained in paragraph B. above, in groups of ten (10) replications, one per every simulated profile.

The output was 480 different predicted performances grouped in 48 files of ten performances each (see examples in Appendix 6).

INPUT (48 files)	OUTPUT (48 files)
cal1A	file1A
cal1B	file1B
.	.
.	.
cal1F	file1F
cal2A	file2A
.	.
.	.
cal8E	file8E
cal8F	file8F

The above output was graphically displayed by the program UFLRPLT (Appendix 7). The dithered performances appeared as a spread of curves for detection, classification and identification of every target and for the six different atmospheric variation combinations. The spread was found to be greatest for the detection curves and particularly for the largest target.

D. TEST FOR NORMALITY

Next, an analysis was made to determine the normal distribution of the spread of predicted ranges for a particular height level and for every target. The test was performed concentrating on height levels of 1,500 ft., 5,000 ft. and 10,000 ft. and for the detection range curves, where the spread was widest.

Starting with the height level of 1,500 ft. and for the combination A, the whole row of data corresponding to this height level was extracted from the dithered performances output files: file1A, file2A, file3A, file4A, file5A, file6A, file7A and file8A. The same proceedure was followed for all the other combinations. The result was six arrays of 80 rows and 12 columns each, which were the input data for the normality test. Since the test was concentrated on the detection range data, the columns of interest of the array were the c1 (detection ranges for target No. 1), c4 (detection

ranges for target No. 2), c7 (detection ranges for target No. 3) and c10 (detection ranges for target No. 4).

The six combinations and three height levels gave a total of 18 arrays for testing purposes (Appendix 8).

The test used [Ref. 3; p.574], consisted of the use of probability plots and sample correlation coefficient (r). The more the r value deviates from 1, the less the probability plot resembles a straight line. The straighter the probability plot, the more plausible is a normal distribution.

A critical value (c_α) of 0.9757, for a 0.1 significance level (α) was used.

The null hypotheses (Ho): "the population is normal", is rejected if $r \le c_\alpha$.

The sample correlation coefficient (r) for the n pairs $(x_i, y_i) \ldots (x_n, y_n)$ is given by:

$$r = \frac{n\sum x_i y_i - (\sum x_i)(\sum y_i)}{\sqrt{n\sum x_i^2 - (\sum x_i)^2}\sqrt{n\sum y_1^2 - (\sum y_i)^2}}$$

n = 80, the size of the sample

x_i = sample values ordered from smallest to largest

y_i = sample percentile of a population distribution

$$Y_i = \Phi^{-1}\left[\frac{i - 0.375}{n + 0.25}\right]$$

The test was performed using the statistical MINITAB program. To illustrate the test for the combination A and height level of 1,500 ft.:

```
                                                  Comments
MTB \   READ 'FILENAME' C1 - C12                 (80 rows x 12 c.
                                                  read)
MTB \   SET C13
MTB \   LET C13 = C13 - 0.375
MTB \   LET C13 = C13 / 80.25
MTB \   SORT C1 C1                                (orders the sample)
1MTB \  INVCDF C13 C14;
        SUBC \  NORMAL
MTB \   PLOT C14 C1                               (probability plot)

MTB \   CORR C14 C1                               (finds r value)
correlation of C14 and C1 (r) = 0.982
```

Since r is greater than $c_\alpha = 0.9757$, the null hypotheses is not rejected and the population distribution is assumed to be normal.

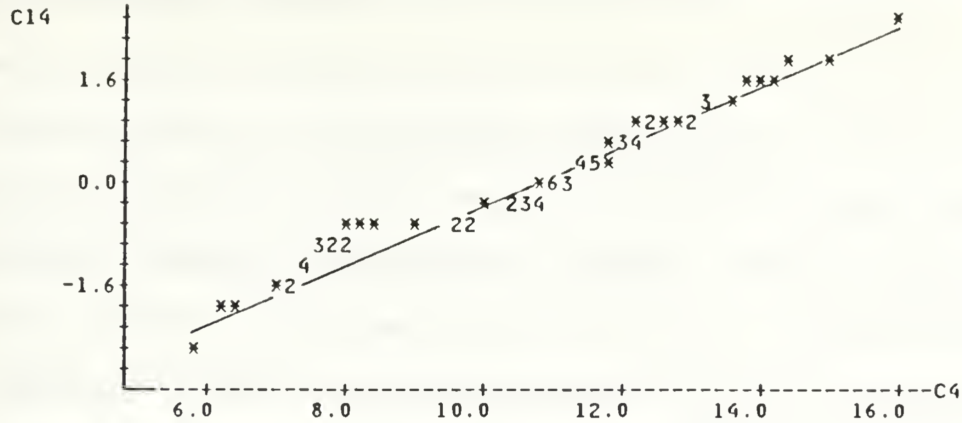
Continuing the same procedure for columns c4, c7, and c10, produced the following results (Figure 3.2):

correlation of C14 and C4 (r) = 0.983

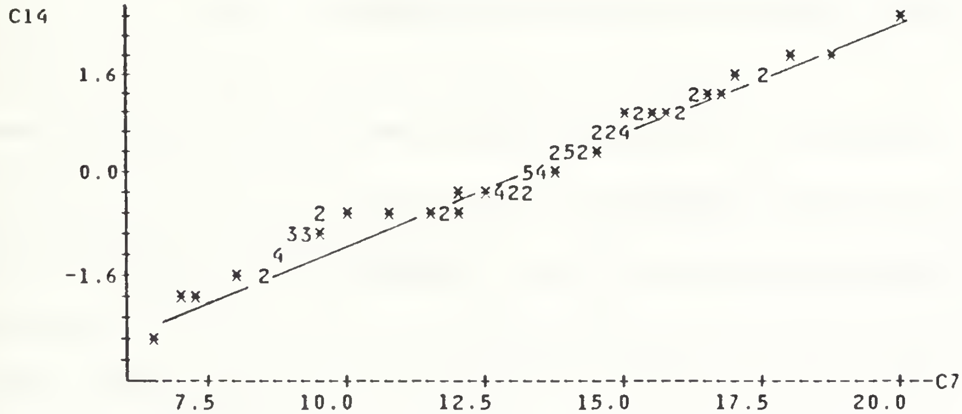
correlation of C14 and C7 (r) = 0.983

correlation of C14 and C10 (r) = 0.984

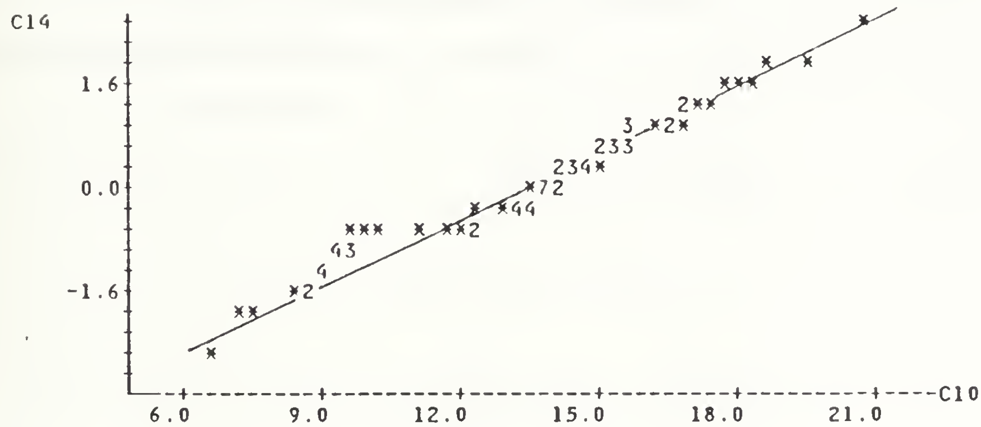
Following the same procedure for the other five combinations, the results were favorable and the normality was proven for all cases. The summary of the results is found in Appendix 9.



Correlation of C14 and C4 = 0.983



Correlation of C14 and C7 = 0.983



Correlation of C14 and C10 = 0.984

Figure 3.2 Examples of Probability Plots

E. DIFFERENCE BETWEEN ACTUAL AND DITHERED PERFORMANCE MEANS

A one-way analysis of variance was performed for the data selected on the 18 arrays (Appendix 7). Starting with the height level of 1,500 ft, one could compare the predicted detection range values assuming the random atmospheric combinations as six different treatments, and the predicted performance for the actual data as a seventh treatment.

The null hypothesis (Ho) stated that the means were identical for all the treatments (I):

$$Ho \quad = \quad \mu_1, \ \mu_2 \ \ldots . \ \mu_7$$

versus the alternative hypothesis (Ha) that at least two of the μ's were different.

The null hypothesis is rejected for a $F \geq F\alpha$, for a significance level α of 0.05.

The computations are summarized on the ANOVA table:

Source of Variation	d.f.	Sum of Squares	Mean Square	F
Treatments	I-1	SSTr	MSTr=SSTr/(I-1)	MSTr
Error	I(J-1)	SSE	MSE=SSE/I(J-1)	MSE
Total	IJ-1	SST		

where:

SST = Total Sum of squares = $\sum_{i=1}^{I}\sum_{j=1}^{J} X_{ij}^2 - 1/IJ\, X^2...$

SSTr = Treatment Sum of squares = $1/J \sum_{i=1}^{I} X_{i.}^2 - 1/IJ\, X^2...$

SSE = Error Sum of Squares = $\sum_{i=1}^{I}\sum_{j=1}^{J} X_{ij}$

$X_{i.}$ = sum of numbers in the ith row of the table

X... = sum of all the X_{ij}'s

The test was performed using the MINITAB statistical program, and the same procedure was followed for the other three targets and for the other two selected height levels of 5,000 ft. and 10,000 ft.

In addition, a 95% confidence interval for the difference between the means of the performances of the actual and dithered radiosonde profiles was determined by the t-interval [Ref. 3]:

$$X - Y \pm t_{\alpha/2,\, m+n-2} \cdot Sp \sqrt{1/m + 1/n}$$

for 95% = 100 (1- α) confidence interval

where:

X = sample mean of the dithered values

Y = sample mean of the actual values

m = size of the dithered sample

n = size of the actual sample

m + n - 2 = degrees of freedom

SP = pooled estimator of the common variance

$$Sp^2 = \frac{1}{(m+n-2)}\left[\sum(Xi - X)^2 + \sum(Yj - Y)^2\right] .$$

The above procedure was applied for the 18 files (arrays) tested earlier (Appendix 7).

The output of the calculations above allowed one to determine the difference in nautical miles between the predicted ranges using the undithered radiosonde data and the mean predicted ranges for the dithered radiosonde data.

IV. RESULTS SECTION

A. RESULTED DIFFERENCES BETWEEN ACTUAL AND DITHERED PERFORMANCES

The FLIR performances predicted by the program UFLR for the eight actual (undithered) atmospheric profiles are shown in Appendix 5. The following were the predicted detection ranges of the four targets, for the height levels of 1,500 ft., 5,000 ft., and 10,000 ft.:

1. Height = 1,500 Ft.

Profile	Target No. 1	Target No. 2	Target No. 3	Target No. 4
cal1	6.4 nmi.	7.5 nmi.	8.8 nmi.	9.0 nmi.
cal2	9.5	11.5	14.1	14.6
cal3	6.9	8.0	9.5	9.8
cal4	9.1	10.9	13.3	13.7
cal5	10.7	13.0	16.1	16.7
cal6	10.2	12.3	15.3	15.8
cal7	9.0	10.8	13.2	13.6
cal8	10.3	12.4	15.5	16.0
Mean:	9.01	10.80	13.22	13.65
S.dev:	1.57	2.03	2.72	2.84

2. Height = 5,000 Ft.

Profile	Target No. 1	Target No. 2	Target No. 3	Target No. 4
cal1	10.8	13.2	16.5	17.1
cal2	13.2	16.4	21.0	21.8
cal3	11.5	14.1	17.8	18.4
cal4	14.0	17.5	22.5	23.4
cal5	13.7	17.0	21.7	22.6
cal6	13.8	17.2	22.0	23.0
cal7	12.5	15.4	19.5	20.3
cal8	14.5	18.3	23.8	24.8
Mean:	13.0	16.13	20.6	21.42
S.dev:	1.29	1.76	2.47	2.63

3. Height = 10,000 Ft.

Profile	Target No. 1	Target No. 2	Target No. 3	Target No. 4
cal1	14.6	18.8	23.9	25.0
cal2	16.0	20.2	26.6	27.8
cal3	15.0	18.8	24.6	25.7
cal4	17.0	21.7	28.8	30.1
cal5	15.7	19.7	25.6	26.7
cal6	16.1	20.3	26.6	27.8
cal7	14.7	18.8	23.7	24.7
cal8	17.2	22.1	29.5	30.9
Mean:	15.78	20.05	26.16	27.33
S.dev:	0.98	1.29	2.15	2.27

The following were the average of the predicted detection ranges of the four targets for the height levels of 1,500 ft., 5,000 Ft. and 10,000 Ft.; obtained from the six different dithered atmospheric profiles (six different combinations of SIGMAT, SIGMAP and SIGMARH):

Combination	SIGMAP	SIGMAT	SIGMARH
A	2.5	1.0	8.0
B	2.5	2.0	8.0
C	2.5	4.0	8.0
D	1.5	1.0	8.0
E	1.5	2.0	8.0
F	1.5	4.0	8.0

a. Height = 1,500 Ft.

	Target No. 1		Target No. 2		Target No. 3		Target No. 4	
Comb.	ave	Sdev	ave	Sdev	ave	Sdev	ave	Sdev
A	8.85	1.74	10.61	2.24	12.94	2.97	13.35	3.12
B	8.87	1.76	10.62	2.26	12.95	2.99	13.36	3.14
C	8.85	1.93	10.58	2.47	12.91	3.27	13.32	3.42
D	8.85	1.74	10.60	2.23	12.93	2.96	13.34	3.10
E	8.86	1.76	10.60	2.26	12.85	3.21	13.27	3.31
F	8.83	1.91	10.56	2.44	12.90	3.24	13.30	3.39

b. Height = 5,000 Ft.

Comb.	Target No. 1 ave	Target No. 1 Sdev	Target No. 2 ave	Target No. 2 Sdev	Target No. 3 ave	Target No. 3 Sdev	Target No. 4 ave	Target No. 4 Sdev
A	12.77	1.61	15.83	2.17	20.20	3.06	20.99	3.24
B	12.75	1.66	15.82	2.25	20.17	3.14	20.98	3.33
C	12.71	1.86	15.76	2.49	20.09	3.49	20.89	3.68
D	12.73	1.60	15.79	2.17	20.12	3.05	20.92	3.22
E	12.75	1.65	15.81	2.23	20.16	3.12	20.96	3.30
F	12.70	1.81	15.74	2.45	20.70	3.43	20.87	3.62

c. Height = 10,000 Ft.

Comb.	Target No. 1 ave	Target No. 1 Sdev	Target No. 2 ave	Target No. 2 Sdev	Target No. 3 ave	Target No. 3 Sdev	Target No. 4 ave	Target No. 4 Sdev
A	15.42	1.33	19.39	1.87	25.33	2.76	26.44	2.93
B	15.43	1.36	19.41	1.91	25.35	2.81	26.46	2.97
C	15.36	1.50	19.32	2.09	25.23	3.07	26.34	3.25
D	15.41	1.33	19.37	1.86	25.32	2.75	26.43	2.90
E	15.43	1.35	19.40	1.89	25.36	2.78	26.4	1.94
F	15.36	1.48	19.32	2.06	25.23	3.03	26.07	4.06

Using the data above, the following were the results of the t-tests performed to determine 95% confidence intervals for the difference between the mean of the actual (undithered) performances and the mean of the performance obtained for every dithered atmospheric profile:

a. Height = 1,500 Ft.

Combination A

Target No.	Pooled variance	Interval(nmi)
1	1.72	$-1.42 < \Delta\mu < 1.19$
2	2.23	$-1.82 < \Delta\mu < 1.45$
3	2.95	$-2.45 < \Delta\mu < 1.89$
4	3.09	$-2.57 < \Delta\mu < 1.98$

Combination B

Target No.	Pooled variance	Interval(nmi)
1	1.74	$-1.42 < \Delta\mu < 1.15$
2	2.24	$-1.83 < \Delta\mu < 1.46$
3	2.97	$-2.45 < \Delta\mu < 1.92$
4	3.12	$-2.58 < \Delta\mu < 2.01$

Combination C

Target No.	Pooled variance	Interval(nmi)
1	1.91	$-1.56 < \Delta\mu < 1.24$
2	2.43	$-2.00 < \Delta\mu < 1.58$
3	3.23	$-2.68 < \Delta\mu < 2.07$
4	3.38	$-2.81 < \Delta\mu < 2.16$

Combination D

Target No.	Pooled variance	Interval(nmi)
1	1.73	$-1.43 < \Delta\mu < 1.12$
2	2.21	$-1.82 < \Delta\mu < 1.43$
3	2.94	$-2.45 < \Delta\mu < 1.88$
4	3.08	$-2.57 < \Delta\mu < 1.96$

Combination E

Target No.	Pooled variance	Interval(nmi)
1	1.74	$-1.43 < \Delta\mu < 1.13$
2	2.24	$-1.84 < \Delta\mu < 1.45$
3	3.17	$-2.70 < \Delta\mu < 1.97$
4	3.28	$-2.78 < \Delta\mu < 2.04$

Combination F

Target No.	Pooled variance	Interval(nmi)
1	1.89	$-1.56 < \Delta\mu < 1.21$
2	2.41	$-2.00 < \Delta\mu < 1.54$
3	3.20	$-2.67 < \Delta\mu < 2.04$
4	3.35	$-2.81 < \Delta\mu < 2.12$

b. **Height = 5,000 Ft.**

Combination A

Target No.	Pooled variance	Interval(nmi)
1	1.59	$-1.40 < \Delta\mu < 0.94$
2	2.14	$-1.87 < \Delta\mu < 1.28$
3	3.02	$-2.62 < \Delta\mu < 1.82$
4	3.19	$-2.77 < \Delta\mu < 1.92$

Combination B

Target No.	Pooled variance	Interval(nmi)
1	1.63	$-1.87 < \Delta\mu < 1.38$
2	2.21	$-1.94 < \Delta\mu < 1.32$
3	3.09	$-2.7 < \Delta\mu < 1.85$
4	3.27	$-2.85 < \Delta\mu < 1.97$

Combination C

Target No.	Pooled variance	Interval(nmi)
1	1.82	$-1.63 < \Delta\mu < 1.05$
2	2.44	$-2.16 < \Delta\mu < 1.43$
3	3.41	$-3.02 < \Delta\mu < 2.01$
4	3.59	$-3.17 < \Delta\mu < 2.12$

Combination D

Target No.	Pooled variance	Interval(nmi)
1	1.58	$-1.43 < \Delta\mu < 0.9$
2	2.14	$-1.91 < \Delta\mu < 1.23$
3	3.01	$-2.69 < \Delta\mu < 1.74$
4	3.18	$-2.83 < \Delta\mu < 1.84$

Combination E

Target No.	Pooled variance	Interval(nmi)
1	1.62	$-1.44 < \Delta\mu < 0.95$
2	2.20	$-1.93 < \Delta\mu < 1.30$
3	3.07	$-2.69 < \Delta\mu < 1.82$
4	3.25	$-2.84 < \Delta\mu < 1.94$

Combination F

Target No.	Pooled variance	Interval(nmi)
1	1.77	$-1.59 < \Delta\mu < 1.00$
2	2.40	$-2.11 < \Delta\mu < 1.38$
3	3.36	$-2.38 < \Delta\mu < 2.58$
4	3.55	$-3.15 < \Delta\mu < 2.06$

c. **Height = 10,000**

Combination A

Target No.	Pooled variance	Interval(nmi)
1	1.30	$-1.31 < \Delta\mu < 0.60$
2	1.83	$-1.99 < \Delta\mu < 0.68$
3	2.72	$-2.82 < \Delta\mu < 1.17$
4	2.89	$-3.00 < \Delta\mu < 1.24$

Combination B

Target No.	Pooled variance	Interval(nmi)
1	1.34	$-1.33 < \Delta\mu < 0.64$
2	1.87	$-2.01 < \Delta\mu < 0.74$
3	2.76	$-2.83 < \Delta\mu < 1.23$
4	2.92	$-3.01 < \Delta\mu < 1.29$

Combination C

Target No.	Pooled variance	Interval(nmi)
1	1.47	$-1.49 < \Delta\mu < 0.67$
2	2.04	$-2.23 < \Delta\mu < 0.77$
3	3.00	$-3.13 < \Delta\mu < 1.29$
4	3.18	$-3.33 < \Delta\mu < 1.36$

Combination D

Target No.	Pooled variance	Interval(nmi)
1	1.30	$-1.32 < \Delta\mu < 0.59$
2	1.82	$-2.04 < \Delta\mu < 0.63$
3	2.70	$-2.82 < \Delta\mu < 1.15$
4	2.85	$-2.99 < \Delta\mu < 1.20$

Combination E

Target No.	Pooled variance	Interval(nmi)
1	1.33	$-1.32 < \Delta\mu < 0.63$
2	1.84	$-2.00 < \Delta\mu < 0.71$
3	2.73	$-2.81 < \Delta\mu < 1.21$
4	2.89	$-2.98 < \Delta\mu < 1.275$

Combination F

Target No.	Pooled variance	Interval(nmi)
1	1.44	$-1.47 < \Delta\mu < 0.64$
2	2.01	$-2.21 < \Delta\mu < 0.75$
3	2.96	$-3.10 < \Delta\mu < 1.26$
4	3.94	$-4.15 < \Delta\mu < 1.64$

The pooled variance is the resulted estimated value of the common variance for the undithered and dithered distributions for each of the combinations.

Also the range interval ($\Delta\mu$) in nautical miles, indicates how far apart the mean of each particular dithered performance may appear with respect to the actual predicted performance mean.

B. ANALYSIS OF VARIANCE

The following were the results of the F-test (for $\alpha = 0.05$) performed on three different height levels to determine if the population means were the same for all of the performances obtained from the six random atmospheric profiles, and the performance obtained for the actual atmospheric profiles (altogether):

a.Height: 1,500 Ft.

Target No. 1

Source	d.f.	Sum of squares	Mean Square	F
treatments	6	1.72	0.29	0.10
error	553	1559.59	2.82	
Total	559	1561.32		

Since F was less than $F_{\alpha,6,553}$=2.1, Accept Ho: $\mu1=\mu2=...=\mu7$

Level	N	Mean	St. Dev.
combination A	80	8.856	1.742
combination B	80	8.874	1.763
combination C	80	8.850	1.939
combination D	80	8.855	1.747
combination E	80	8.859	1.764
combination F	80	8.834	1.917
actual atm	80	9.010	

Target No. 2

Source	d.f.	Sum of squares	Mean Square	F
treatments	6	2.89	0.48	0.10
error	553	2554.00	4.62	
Total	559	2556.89		

Since F was less than $F\alpha$, Accept Ho: $\mu1 = \mu2 = ... = \mu7$

Level	N	Mean	St. Dev.
combination A	80	10.612	2.247
combination B	80	10.619	2.260
combination C	80	10.587	2.470
combination D	80	10.602	2.232
combination E	80	10.607	2.261
combination F	80	10.569	2.446
actual atm	80	10.800	

Target No. 3

Source	d.f.	Sum of squares	Mean Square	F
treatments	6	6.72	1.12	0.13
error	553	4597.25	8.31	
Total	559	4603.97		

Since F was less than $F\alpha$, Accept Ho: $\mu 1 = \mu 2 = \ldots = \mu 7$

Level	N	Mean	St. Dev.
combination A	80	12.946	2.970
combination B	80	12.957	2.999
combination C	80	12.916	3.276
combination D	80	12.935	2.965
combination E	80	12.857	3.216
combination F	80	12.904	3.242
actual atm	80	13.220	

Target No. 4

Source	d.f.	Sum of squares	Mean Square	F
treatments	6	7.57	1.26	0.14
error	553	5019.44	9.08	
Total	559	5027.01		

Since F was less than $F\alpha$, Accept Ho: $\mu 1 = \mu 2 = \ldots = \mu 7$

Level	N	Mean	St. Dev.
combination A	80	13.356	3.119
combination B	80	13.365	3.148
combination C	80	13.324	3.428
combination D	80	13.341	3.103
combination E	80	13.277	3.317
combination F	80	13.302	3.394
actual atm	80	13.650	

b. Height = 5,000 Ft.

Target No. 1

Source	d.f.	Sum of squares	Mean Square	F
treatments	6	4.99	0.83	0.33
error	553	1376.62	2.49	
Total	559	1381.60		

Since F was less than $F\alpha$, Accept Ho: $\mu 1 = \mu 2 = \ldots = \mu 7$

Level	N	Mean	St. Dev.
combination A	80	12.770	1.615
combination B	80	12.757	1.664
combination C	80	12.711	1.861
combination D	80	12.735	1.606
combination E	80	12.754	1.651
combination F	80	12.702	1.811
actual atm	80	13.000	

Target No. 2

Source	d.f.	Sum of squares	Mean Square	F
treatments	6	8.17	1.36	0.30
error	553	2508.91	4.54	
Total	559	2517.08		

Since F was less than Fα, Accept Ho: $\mu 1 = \mu 2 = \ldots = \mu 7$

Level	N	Mean	St. Dev.
combination A	80	15.831	2.177
combination B	80	15.821	2.251
combination C	80	15.766	2.494
combination D	80	15.791	2.172
combination E	80	15.812	2.235
combination F	80	15.745	2.454
actual atm	80	16.130	

Target No. 3

Source	d.f.	Sum of squares	Mean Square	F
treatments	6	15.49	2.58	0.29
error	553	4931.79	8.92	
Total	559	4947.27		

Since F was less than $F\alpha$, Accept Ho: $\mu 1 = \mu 2 = \ldots = \mu 7$

Level	N	Mean	St. Dev.
combination A	80	20.200	3.066
combination B	80	20.174	3.148
combination C	80	20.094	3.491
combination D	80	20.126	3.057
combination E	80	20.164	3.127
combination F	80	20.077	3.437
actual atm	80	20.600	

Target No. 4

Source	d.f.	Sum of squares	Mean Square	F
treatments	6	16.71	2.79	0.28
error	553	5498.87	9.94	
Total	559	5515.59		

Since F was less than $F\alpha$, Accept Ho: $\mu 1 = \mu 2 = \ldots = \mu 7$

Level	N	Mean	St. Dev.
combination A	80	20.995	3.240
combination B	80	20.980	3.331
combination C	80	20.897	3.681
combination D	80	20.924	3.225
combination E	80	20.969	3.307
combination F	80	20.876	3.623
actual atm	80	21.420	

c. Height = 10,000 Ft.

Target No. 1

Source	d.f.	Sum of squares	Mean Square	F
treatments	6	9.95	1.66	0.99
error	553	927.72	1.68	
Total	559	937.67		

Since F was less than $F\alpha$, Accept Ho: $\mu1 = \mu2 =...= \mu7$

Level	N	Mean	St. Dev.
combination A	80	15.421	1.334
combination B	80	15.435	1.369
combination C	80	15.369	1.509
combination D	80	15.414	1.331
combination E	80	15.436	1.358
combination F	80	15.366	1.481
actual atm	80	15.780	

Target No. 2

Source	d.f.	Sum of squares	Mean Square	F
treatments	6	32.35	5.39	1.65
error	553	1808.32	3.25	
Total	559	1840.67		

Since F was less than Fα, Accept Ho: $\mu1 = \mu2 =...= \mu7$

Level	N	Mean	St. Dev.
combination A	80	19.392	1.873
combination B	80	19.414	1.918
combination C	80	19.320	2.096
combination D	80	19.374	1.861
combination E	80	19.402	1.890
combination F	80	19.320	2.068
actual atm	80	20.050	

Target No. 3

Source	d.f.	Sum of squares	Mean Square	F
treatments	6	51.02	8.50	1.20
error	553	3910.27	7.05	
Total	559	3961.29		

Since F was less than Fα, Accept Ho: $\mu1 = \mu2 =...= \mu7$

Level	N	Mean	St. Dev.
combination A	80	25.334	2.769
combination B	80	25.357	2.813
combination C	80	25.237	3.071
combination D	80	25.324	2.751
combination E	80	25.360	2.781
combination F	80	25.237	3.031
actual atm	80	26.160	

Target No. 4

Source	d.f.	Sum of squares	Mean Square	F
treatments	6	71.97	11.99	1.36
error	553	4878.97	8.82	
Total	559	4950.94		

Since F was less than $F\alpha$, Accept Ho: $\mu 1 = \mu 2 = \ldots = \mu 7$

Level	N	Mean	St. Dev.
combination A	80	26.449	2.939
combination B	80	26.467	2.978
combination C	80	26.345	3.258
combination D	80	26.439	2.905
combination E	80	26.475	2.948
combination F	80	26.076	4.063
actual atm	80	27.330	

C. ERROR MARGIN ON THE PREDICTED PERFORMANCES

The earlier experimental procedure allowed one to estimate how far apart (in nautical miles) the real FLIR performances might be from the performances predicted by the UFLR model, due to random atmospheric variations of pressure, temperature and relative humidity.

The following intervals about the actual predicted performance, indicate the spread within which the true range may be localized with a probability of 0.9974 (3 standard deviations), for the height levels and atmospheric variations shown :

a. Height = 1,500 Ft.

combination target No.	A	B	C	D	E	F
			(nmi)			
1	± 5.2	± 5.3	± 5.8	± 5.2	± 5.3	± 5.7
2	± 6.7	± 6.8	± 7.4	± 6.7	± 6.8	± 7.3
3	± 8.9	± 9.0	± 9.8	± 8.8	± 9.6	± 9.7
4	± 9.3	± 9.4	±10.3	± 9.3	± 9.9	±10.2

b. Height = 5,000 Ft.

combination target No.	A	B	C	D	E	F
			(nmi)			
1	± 4.8	± 5.0	± 5.6	± 4.8	± 4.9	± 5.4
2	± 6.5	± 6.7	± 7.5	± 6.5	± 6.7	± 7.3
3	± 9.2	± 9.4	±10.5	± 9.2	± 9.4	±10.3
4	± 9.7	±10.0	±11.0	± 9.6	± 9.9	±10.8

c. Height = 10,000 Ft.

combination target No.	A	B	C (nmi)	D	E	F
1	± 4.0	± 4.1	± 4.52	± 3.99	± 4.07	± 4.4
2	± 5.61	± 5.75	± 6.28	± 5.58	± 5.67	± 6.2
3	± 8.3	± 8.43	± 9.21	± 8.25	± 8.34	± 9.1
4	± 8.81	± 8.93	± 9.77	± 8.71	± 8.84	±12.2

The following intervals about the mean of each dithered profile, indicate the estimated errors on the predicted detection ranges (3 standard deviations), for the height levels of 1,500 ft., 5,000 ft. and 10,000 ft. The intervals were calculated by averaging each of the 48 UFLR output files (see chapter III, paragraph C.2. Also see appendix 8):

a. Height = 1,500 Ft.

Combination A

FILE	target No.1 ave	Err	No.2 ave	Err	No.3 ave	Err	No.4 ave	Err
file1A	6.2	1.81	7.2	2.26	8.48	2.85	8.68	3.00
file2A	9.1	1.92	10.9	2.50	13.38	3.30	13.81	3.50
file3A	6.4	1.38	7.5	1.72	8.89	2.33	9.10	2.44
file4A	8.8	1.99	10.64	2.58	12.96	3.34	13.35	3.47
file5A	11.26	2.62	13.71	3.51	17.06	4.67	17.70	4.87
file6A	10.17	2.14	12.30	2.83	15.2	3.82	15.72	4.03
file7A	9.19	1.51	11.03	1.92	13.47	2.59	13.90	2.67
file8A	9.57	2.22	11.51	2.91	14.13	3.91	14.59	4.17

Combination B

File	target No.1 ave	Err	No.2 ave	Err	No.3 ave	Err	No.4 ave	Err
file1B	5.65	2.0	7.27	0.96	8.54	3.65	8.72	3.76
file2B	9.12	1.95	10.95	2.47	13.38	2.34	13.79	3.49
file3B	6.48	1.68	7.54	2.16	8.88	2.75	9.10	2.94
file4B	8.90	2.37	10.66	3.00	12.96	4.09	13.38	4.31
file5B	11.24	2.69	13.67	3.55	17.00	4.80	17.65	5.03
file6B	10.17	2.87	12.26	2.87	15.15	3.96	15.68	4.17
file7B	9.22	1.80	11.05	2.25	13.51	3.00	13.95	3.17
file8B	9.61	2.43	11.55	3.16	14.21	4.21	14.65	4.43

Combination C

File	target No.1		No.2		No.3		No.4	
	ave	Err	ave	Err	ave	Err	ave	Err
file1C	6.30	3.75	7.33	4.68	8.63	5.96	8.84	6.19
file2C	9.11	3.00	10.93	3.87	13.33	5.18	13.79	5.47
file3C	6.43	2.92	7.50	3.60	8.84	4.63	9.04	4.81
file4C	8.89	3.93	10.60	4.93	12.93	6.54	13.30	6.85
file5C	11.16	3.68	13.55	4.72	16.89	6.48	17.47	6.77
file6C	10.08	3.33	12.17	4.34	15.00	5.79	15.53	6.14
file7C	9.21	3.30	11.05	4.13	13.50	5.60	13.95	5.82
file8C	9.62	3.74	11.56	4.72	14.19	6.35	14.64	6.63

Combination D

file1D	6.18	1.66	7.18	2.06	8.42	2.73	8.63	2.76
file2D	9.13	1.86	10.96	2.39	13.39	3.23	13.83	3.37
file3D	6.45	1.41	7.53	1.68	8.88	2.28	9.07	2.34
file4D	8.84	1.83	10.59	2.34	12.87	3.12	13.27	3.27
file5D	11.25	2.58	13.66	3.43	17.04	4.59	17.62	4.80
file6D	10.16	2.14	12.26	2.76	15.14	3.78	15.67	4.00
file7D	9.22	1.45	11.07	1.79	13.53	2.41	13.97	2.51
file8D	9.61	2.09	11.57	2.68	14.21	3.63	14.62	3.57

Combination E

file1E	6.21	2.17	7.2	2.67	8.48	3.42	8.68	3.50
file2E	9.15	1.82	10.97	2.38	13.41	3.13	13.83	3.32
file3E	6.45	1.66	7.54	2.00	8.87	2.63	7.00	2.75
file4E	8.84	2.19	10.59	2.86	12.89	3.70	13.30	3.88
file5E	11.24	2.69	13.67	3.55	17.03	4.81	17.65	5.00
file6E	10.13	2.20	12.23	2.84	15.13	3.87	15.63	4.00
file7E	9.22	1.79	11.00	2.27	13.57	3.00	14.00	3.19
file8E	9.63	2.41	11.58	3.00	14.24	4.00	14.71	4.29

Combination F

file1F	6.24	3.58	7.28	4.40	8.57	5.77	8.76	5.96
file2F	9.13	3.00	10.96	3.74	13.39	5.00	13.82	5.27
file3F	6.44	2.85	7.49	3.54	8.85	4.46	9.05	4.65
file4F	8.82	3.70	10.55	4.75	12.85	6.22	13.25	6.53
file5F	11.13	3.50	13.50	4.57	16.83	6.26	17.41	6.47
file6F	10.06	3.12	12.13	3.97	15.00	5.66	15.50	5.95
file7F	9.23	3.23	11.00	4.00	13.54	5.50	13.96	5.74
file8F	9.62	3.61	11.53	4.64	14.21	6.16	14.68	6.48

b. Height = 5,000 Ft.

Combination A

File	target No.1 ave	Err	No.2 ave	Err	No.3 ave	Err	No.4 ave	Err
file1A	10.63	4.09	13.00	5.53	16.23	7.68	16.82	8.10
file2A	12.60	2.55	15.60	3.43	19.89	4.92	20.65	5.15
file3A	10.78	2.59	13.17	3.52	16.47	4.78	17.05	5.10
file4A	13.50	3.15	16.78	4.34	21.48	6.13	22.35	6.51
file5A	14.54	2.50	18.24	3.45	23.60	5.00	24.60	5.25
file6A	13.82	2.44	17.24	3.47	22.17	5.00	23.08	5.28
file7A	12.85	2.11	15.87	2.80	20.25	4.00	21.04	4.20
file8A	13.44	3.36	16.75	4.72	21.50	6.87	22.37	7.31

Combination B

file1B	10.45	3.60	12.76	4.80	15.90	6.68	16.46	6.96
file2B	12.63	2.63	15.61	3.52	19.89	4.95	20.69	5.27
file3B	10.81	2.92	13.19	4.00	16.49	5.42	17.08	5.70
file4B	13.50	3.45	16.80	4.68	21.49	6.52	22.35	6.93
file5B	14.50	2.70	18.27	3.81	23.61	5.32	24.63	5.65
file6B	13.84	2.65	17.26	3.74	22.19	5.26	23.13	5.59
file7B	12.84	2.42	16.00	3.24	20.28	4.48	21.08	4.78
file8B	13.46	3.58	16.77	5.04	21.54	7.16	22.42	7.57

Combination C

file1C	10.47	4.95	12.78	6.65	15.92	9.22	16.50	9.66
file2C	12.49	3.84	15.56	4.41	19.79	6.25	20.58	6.57
file3C	10.77	3.98	13.14	5.40	16.40	7.39	17.00	7.76
file4C	13.45	4.46	16.71	6.00	21.39	8.28	22.25	8.75
file5C	14.51	3.50	18.18	4.92	23.52	6.89	24.51	7.29
file6C	13.77	3.42	17.18	4.78	22.07	6.72	22.99	7.12
file7C	12.82	3.45	15.88	4.64	20.24	6.54	21.03	6.93
file8C	13.41	4.49	16.70	6.22	21.42	8.76	22.32	9.23

Combination D

file1D	10.39	2.93	12.67	3.91	15.76	5.40	16.32	5.68
file2D	12.62	2.46	15.62	3.36	19.89	4.81	20.67	5.07
file3D	10.78	2.42	13.19	3.35	16.45	4.57	17.03	4.80
fil34D	13.44	3.02	16.72	4.21	21.39	5.93	22.26	6.24
file5D	14.52	2.40	18.21	3.45	23.55	4.86	23.05	5.25
file6D	13.82	2.42	17.24	3.46	22.15	5.04	23.05	5.25
file7D	12.85	2.04	15.91	2.85	20.28	3.95	21.09	4.16
file8D	13.46	3.28	16.77	4.64	21.54	6.65	22.42	7.04

Combination E

File	Target No1 ave	Err	No.2 Ave	Err	No.3 Ave	Err	No.4 Ave	Err
file1E	10.42	3.42	12.70	4.60	15.84	6.26	16.40	6.72
file2E	16.63	2.55	15.64	3.44	19.92	4.81	20.71	5.09
file3E	10.79	2.74	13.20	3.79	16.47	5.18	17.07	5.33
file4E	13.47	3.28	16.73	4.52	21.42	6.33	22.28	6.67
file5E	14.54	2.69	18.27	3.81	23.61	5.32	24.63	5.65
file6E	13.83	2.53	17.24	3.65	22.17	5.15	23.07	5.49
file7E	12.88	2.39	15.93	3.23	20.32	4.52	21.14	4.80
file8E	13.47	3.50	16.79	4.90	21.56	7.00	22.45	7.44

Combination F

file1F	10.45	4.74	12.71	6.40	15.85	8.87	16.44	9.33
file2F	12.58	3.26	15.56	4.29	19.83	6.11	20.60	6.46
file3F	10.76	3.87	13.14	5.12	16.40	7.12	17.00	7.42
file4F	13.40	4.26	16.65	5.68	21.29	7.95	22.16	8.36
file5F	14.49	3.39	18.17	4.75	23.49	6.61	24.47	7.06
file6F	13.76	3.27	17.17	4.60	22.06	6.50	22.97	6.87
file7F	12.82	3.36	15.88	4.57	20.26	6.39	21.04	6.75
file8F	13.39	4.34	16.68	6.03	21.44	8.48	22.33	9.03

c. Height = 10,000 Ft.

Combination A

File	target No.1 ave	Err	No.2 ave	Err	No.3 ave	Err	No.4 ave	Err
file1A	13.92	3.86	17.38	5.00	22.45	7.47	23.41	7.89
file2A	15.24	2.57	19.09	3.75	24.90	5.69	26.00	6.02
file3A	13.94	3.07	17.38	4.07	22.38	6.19	23.31	6.58
file4A	16.31	2.96	20.63	4.65	27.09	6.97	28.30	7.44
file5A	16.77	1.75	21.27	2.56	28.05	3.87	29.33	4.20
file6A	16.15	2.10	20.37	3.34	26.75	5.09	27.95	5.41
file7A	15.16	1.61	18.96	2.46	24.69	3.73	25.75	3.92
file8A	15.88	3.39	20.06	5.24	26.36	7.99	27.54	8.54

Combination B

file1B	13.95	4.23	17.42	5.63	22.54	8.35	23.48	8.82
file2B	15.25	2.49	19.09	3.58	24.92	5.52	25.98	5.75
file3B	13.93	3.34	17.38	4.38	22.37	6.57	23.32	6.96
file4B	16.31	3.14	20.62	4.69	27.08	6.98	28.30	7.47
file5B	16.79	1.76	21.37	2.68	28.07	4.04	29.34	4.37
file6B	16.15	2.25	20.38	3.40	26.76	5.22	27.93	5.49
file7B	15.19	1.92	18.98	2.70	24.74	4.07	25.81	4.25
file8B	15.90	3.46	20.07	5.30	26.38	8.03	27.58	8.54

Combination C

File	Target No.1 ave	Err	No.2 Ave	Err	No.3 Ave	Err	No.4 Ave	Err
file1C	13.93	5.37	17.42	7.42	22.54	10.80	23.48	11.46
file2C	15.17	2.81	19.00	3.92	24.76	5.92	25.84	6.20
file3C	13.85	4.14	17.25	5.40	22.27	8.03	23.18	8.44
file4C	16.23	3.60	20.50	5.20	26.92	7.75	28.12	8.19
file5C	16.72	2.26	21.21	3.41	27.96	5.07	29.23	5.42
file6C	16.08	2.74	20.27	4.06	26.59	6.10	27.80	6.48
file7C	15.14	2.68	18.94	3.72	24.64	5.40	25.70	5.75
file8C	15.83	3.94	19.97	5.81	26.22	8.84	27.41	9.42

Combination D

file1D	13.88	3.71	17.33	4.80	22.40	7.11	23.35	7.52
file2D	15.24	2.52	19.08	3.70	24.94	5.65	26.02	5.97
file3D	13.93	3.00	17.36	3.90	22.35	5.98	23.31	6.33
file4D	16.27	3.03	20.56	4.59	26.99	7.01	28.22	7.29
file5D	16.75	1.68	21.26	2.63	28.03	3.94	29.29	4.19
file6D	16.14	2.20	20.36	3.41	26.75	5.15	27.93	5.05
file7D	15.17	1.76	18.97	2.55	24.74	3.78	25.81	3.94
file8D	15.93	3.34	20.07	5.10	26.40	7.86	27.58	8.37

Combination E

file1E	13.90	4.13	17.38	5.40	22.47	8.00	23.46	8.49
file2E	15.26	2.45	19.12	3.57	24.95	5.41	26.03	5.72
file3E	13.95	3.15	17.37	4.12	22.39	6.24	23.33	6.70
file4E	16.30	3.01	20.58	4.61	27.04	6.80	28.25	7.33
file5E	16.79	1.76	21.29	2.63	28.07	4.04	29.34	4.37
file6E	16.17	2.23	20.37	3.43	26.75	5.25	27.93	5.54
file7E	15.19	1.93	19.01	2.77	24.78	4.11	25.86	4.32
file8E	15.93	3.39	20.10	5.20	26.43	7.88	27.60	8.44

Combination F

file1F	13.92	5.18	17.37	7.01	22.47	10.42	23.41	10.96
file2F	15.16	2.76	19.02	3.92	24.79	5.81	25.89	6.11
file3F	13.87	4.02	17.28	5.30	22.27	7.80	23.22	8.28
file4F	16.21	3.41	20.49	5.10	26.89	7.53	28.07	8.00
file5F	16.71	2.22	21.19	3.27	27.95	4.90	29.22	5.26
file6F	16.09	2.64	20.28	4.03	26.63	6.01	27.81	6.38
file7F	15.13	2.63	18.95	3.66	24.67	5.40	25.73	5.64
file8F	15.84	3.88	19.98	5.73	26.23	8.70	27.41	9.26

D. GRAPHICAL DISPLAY OF THE ACTUAL AND PREDICTED PERFORMANCES

Appendix 10 contains the plots of the UFLR predicted performances obtained for the different dithered atmospheric profiles. A graphical comparison between the actual (undithered) and the dithered performances by the program UFLR, for the detection of the four different sized targets is shown.

E. CONCLUSIONS AND RECOMMENDATIONS

It has been demonstrated that the predicted performance by the program UFLR is affected by random atmospheric variations of pressure, temperature and relative humidity, as a consequence of changes in the actual meteorological conditions.

The comparison of the predicted FLIR performances obtained from the simulated atmospheric profiles (dithered profiles), with the performance obtained from the actual atmospheric profiles (undithered profiles), allowed one to conclude that the detection of a given surface target for a given flight altitude may vary in range due to random atmospheric variations.

The plot of the dithered performances appeared as a spread of curves around the undithered performance. A normal distribution of the spread of predicted detection ranges of four different sized targets for the height levels of 1,500 ft., 5,000 ft. and 10,000 ft. was found.

It is recommended before starting FLIR surveillance operations, to perform atmospheric simulations along with the radiosonde readings to estimate changes on the atmospheric conditions in time and position for the given operational area during the operation hours.

It is also recommended that a statistical analysis be performed using a large number of radiosonde profiles and more replications for the dithered FLIR performances, otherwise the data used may not show the true variability. A large amount of data available, could improve the precision on the mean and the estimated error ranges about the predicted values.

APPENDIX I

COMPUTER PROGRAM UFLR

```
C     PROGRAM UFLR
      CHARACTER*20 INAME,ONAME
      COMMON /COMPPER/ RA(18,15),TRANS(18,15)
      COMMON /COMPPNT/ PREDHT(15)
      COMMON /ENVIRO/  Z(55),P(55),T(55),RH(55),VIS,HT0,PR0,FF
      COMMON /MISCELL/ ANGLE(18),NMAX,NRAY
      COMMON /PERFPNT/ PERFR(3,5,15)
      COMMON /SUBPERF/ NUMHT,TDT(5),TGTX(5),TGTY(5),NUMTGT
      COMMON /LUNITS/  LUIN, LUERR, LUOUT
      OPEN (LUERR,FILE='UFLR.OUT',STATUS='unknown')
      IOS = 0
 34   WRITE (*,*) ' ENTER INPUT RADIOSONDE FILENAME : '
      READ (*,'(A)') INAME
      OPEN (LUIN,FILE=INAME,STATUS='OLD',ERR=3,IOSTAT=IOS)
 3    IF (IOS.NE.0) THEN
        WRITE (*,*) ' OPEN ERROR - FILENAME MUST EXIST'
        GO TO 34
      ENDIF
      OPEN (UNIT = 9,FILE ='UFFFF',STATUS ='OLD')
C
C       MAIN LOOP
C     ***********
      DO 88 NREP = 1,10
            CALL FLIRIN (INAME,ONAME)
            CALL ATMOS  (LUIN,NMAX)
            CALL PROFILE
            CALL TRNSMTA
            CALL PERFORM
            CALL MSGOUT (VIS,FF,LUOUT,INAME,ONAME)
            REWIND 9
 88   CONTINUE
      STOP
      END
C
C
      SUBROUTINE FLIRIN (INAME,ONAME)
C     *****************
C
      COMMON /ENVIRO/  Z(55),P(55),T(55),RH(55),VIS,HT0,PR0,FF
      COMMON /MISCELL/ ANGLE(18),NMAX,NRAY
      COMMON /SUBPERF/ NUMHT,TDT(5),TGTX(5),TGTY(5),NUMTGT
      COMMON /LUNITS/  LUIN, LUERR, LUOUT
      COMMON /FLIRPAR/ A1(3),A2(3),EX(3),EY(3),CRIT(3)
      CHARACTER*20 INAME,ONAME
      DO 2 I=1,24
        WRITE (*,*) '  '
 2    CONTINUE
      WRITE (*,*) ' P R O G R A M   U F L R '
      WRITE (*,*)
     8' COMPUTES FLIR SYSTEM PERFORMANCE FROM P, T, AND RH SOUNDINGS'
 97   WRITE(*,*)' ENTER OUTPUT FILE NAME '
      READ(*,'(A20)') ONAME
      OPEN (LUOUT,FILE=ONAME,STATUS='NEW',ERR=99)
      GO TO 98
 99   WRITE(*,*)' OUTPUT FILE ALREADY EXISTS! ENTER NEW NAME '
      GO TO 97
 98   WRITE (*,*) '  '
      WRITE (*,*) '  '
      WRITE (*,*) '  '
      WRITE (LUOUT,'(///,'' INPUT FILENAME: '',A20)') INAME
      WRITE (LUOUT,'('' OUTPUT FILENAME: '',A20)') ONAME
C     WRITE (LUOUT,104)
C     WRITE (LUOUT,103) (I,P(I),T(I),RH(I),I=1,NMAX)
      DO 6 I=1,3
        A1(I) = 0
        A2(I) = 0
        EX(I) = 0
        EY(I) = 0
 6    CONTINUE
      DO 7 I=1,5
        TDT(I) = 0
        TGTX(I) = 0
```

```
         TGTY(I) = 0
 7       CONTINUE
         NUMTGT = 0
         FF     = 0
         VIS    = 0
         PRO    = 0
         HTO    = 0
         WRITE (*,*) '  '
         WRITE (*,*) '  '
         WRITE (*,*) '  '
         WRITE (*,*) '  '
         WRITE (*,*) '  '
         WRITE (*,*) ' *************************************************'
         WRITE (*,*) ' *                                               *'
         WRITE (*,*) ' *                                               *'
         WRITE (*,*) ' *            AEROSOL MODEL INPUTS               *'
         WRITE (*,*) ' *                                               *'
         WRITE (*,*) ' *                                               *'
         WRITE (*,*) ' *************************************************'
         WRITE (*,*) '  '
         WRITE (*,*) '  '
         WRITE (*,*) '  '
 12      WRITE (*,*) ' ENTER RADIOSONDE LAUNCH HEIGHT (M) : '
         READ (9,*) HTO
         IF (HTO.LT.0.0) GO TO 12
         WRITE (*,*) '  '
 13      WRITE (*,*) ' ENTER RADIOSONDE LAUNCH PRESSURE (MB) : '
         READ (9,*) PRO
         IF (PRO.LT.0.0) GO TO 13
         WRITE (*,*) '  '
 14      WRITE (*,*) ' ENTER SURFACE WIND SPEED (M/S) : '
         READ (9,*) FF
         IF (FF.LT.0.0) GO TO 14
         WRITE (*,*) '  '
         WRITE (*,*) ' ENTER VISIBILITY (KM) (-1 IF UNKNOWN) : '
         READ (9,*) VIS
         WRITE (*,*) '  '
         WRITE (LUOUT,106)
         WRITE (LUOUT,107) HTO,PRO,FF,VIS
         WRITE (*,*) '  '
         WRITE (*,*) '  '
         WRITE (*,*) '  '
         WRITE (*,*) '  '
         WRITE (*,*) '  '
         WRITE (*,*) ' ************************************************'
         WRITE (*,*) ' *                                              *'
         WRITE (*,*) ' *                                              *'
         WRITE (*,*) ' *               FLIR PARAMETERS                *'
         WRITE (*,*) ' *                                              *'
         WRITE (*,*) ' *                                              *'
         WRITE (*,*) ' ************************************************'
         WRITE (*,*) '  '
         WRITE (*,*) '  '
         WRITE (*,*) '  '
 20      WRITE (*,*) ' ENTER A1 ARRAY (A1(DET), A1(CLASS), A1(ID)) : '
         READ (9,*) A1(1),A1(2),A1(3)
         IF (A1(1).LE.0.0 .OR. A1(2).LE.0.0 .OR. A1(3).LE.0.0) GO TO 20
         WRITE (*,*) '  '
 21      WRITE (*,*) ' ENTER A2 ARRAY (A2(DET), A2(CLASS), A2(ID)) : '
         READ (9,*) A2(1),A2(2),A2(3)
         IF (A2(1).LE.0.0 .OR. A2(2).LE.0.0 .OR. A2(3).LE.0.0) GO TO 21
         WRITE (*,*) '  '
 22      WRITE (*,*) ' ENTER EX ARRAY (EX(DET), EX(CLASS), EX(ID)) : '
         READ (9,*) EX(1),EX(2),EX(3)
         IF (EX(1).LE.0.0 .OR. EX(2).LE.0.0 .OR. EX(3).LE.0.0) GO TO 22
         WRITE (*,*) '  '
 23      WRITE (*,*) ' ENTER EY ARRAY (EY(DET), EY(CLASS), EY(ID)) : '
         READ (9,*) EY(1),EY(2),EY(3)
         IF (EY(1).LE.0.0 .OR. EY(2).LE.0.0 .OR. EY(3).LE.0.0) GO TO 23
         WRITE (*,*) '  '
         WRITE (LUOUT,109)
         WRITE (LUOUT,105) (A1(I),A2(I),EX(I),EY(I),I=1,3)
```

```
      WRITE (*,*) '  '
      WRITE (*,*) '  '
      WRITE (*,*) '  '
      WRITE (*,*) '  '
      WRITE (*,*) '  '
      WRITE (*,*) ' ******************************************************'
      WRITE (*,*) ' *                                                    *'
      WRITE (*,*) ' *                                                    *'
      WRITE (*,*) ' *                    TARGET DATA                     *'
      WRITE (*,*) ' *                                                    *'
      WRITE (*,*) ' *                                                    *'
      WRITE (*,*) ' ******************************************************'
      WRITE (*,*) '  '
      WRITE (*,*) '  '
      WRITE (*,*) '  '
 30   WRITE (*,*) ' ENTER NUMBER OF TARGETS TO PROCESS (I <= 4) : '
      READ (9,*) NUMTGT
      IF (NUMTGT.LT.1.OR.NUMTGT.GT.4) GO TO 30
        DO 10 I=1,NUMTGT
          WRITE (*,*) '  '
 31       WRITE (*,'(''  ENTER TARGET('',I1,'') LENGTH (M) : '')') I
          READ (9,*) TGTX(I)
          IF (TGTX(I).LT.0.0) GO TO 31
          WRITE (*,*) '  '
 32       WRITE (*,'(''  ENTER TARGET('',I1,'') HEIGHT (M) : '')') I
          READ (9,*) TGTY(I)
          IF (TGTY(I).LT.0.0) GO TO 32
          WRITE (*,*) '  '
 33       WRITE (*,'(''  ENTER TARGET('',I1,
     &    '') EFFECTIVE DELTA T (DEG C) : '')') I
          READ (9,*) TDT(I)
          IF (TDT(I).LT.0.0) GO TO 33
 10     CONTINUE
      WRITE (*,*) '  '
      WRITE (LUOUT,111)
      WRITE (LUOUT,103) (I,TGTX(I),TGTY(I),TDT(I),I=1,NUMTGT)
      RETURN
 103  FORMAT (I3,3F9.2)
 104  FORMAT (/,' LEV   P(MB)     T(C)    RH(%)')
 105  FORMAT (1X,4F9.4)
 106  FORMAT (/,'    HT0       PR0        FF       VIS')
 107  FORMAT (4F9.2)
 109  FORMAT (/,'     A1        A2        EX        EY')
 111  FORMAT (/,'  I      TX        TY       TDT')
      END
C
      SUBROUTINE ATMOS(LUIN,NMAX)
C     ********************
C
      COMMON /ENVIRO/ Z(55),P(55),T(55),RH(55),VIS,HT0,PR0,FF
      DO 1 I=1,55
        Z(I) = 0
        P(I) = 0
        T(I) = 0
        RH(I) = 0
 1    CONTINUE
C     ******
      K = 1
      DO 25 I= 1,5
        READ (LUIN,'(A1)')
 25   CONTINUE
      DO 59 I=1,29
        READ (LUIN,*,ERR=59)Z(I),P(I),T(I),RH(I)
C       PRINT *, Z(I),P(I),T(I),RH(I)
        K = K+1
 59   CONTINUE
      NMAX = K-1
      RETURN
      END
C
      SUBROUTINE MSGOUT (VIS,WIND,LUOUT,INAME,ONAME)
C     ******************
```

```
C
      COMMON /COMPPNT/ PREDHT(15)
      COMMON /PERFPNT/ PERFR(3,5,15)
      COMMON /SUBPERF/ NUMHT,TDT(5),TGTX(5),TGTY(5),NUMTGT
      CHARACTER*20 INAME,ONAME
      CHARACTER*17 LABEL(2)
      CHARACTER*3  CONT
      INTEGER Q
        Q = LUOUT
        CKMTOFT=3280.84
        CMPSTKNT=1.94262
        CKMTNMI=0.53961
        LABEL(1) = 'DET CLASS  ID    '
        LABEL(2) = '    (NMI)        '

      WRITE (*,'('' INPUT RADIOSONDE: '',A20)') INAME
      WRITE (*,'('' WIND VELOCITY: '',F6.1,1X,''KNOTS'',5X,
     *           '' VISIBILITY: '',F6.1,1X,''NMI'',/)')
     *           WIND*CMPSTKNT, VIS*CKMTNMI
      WRITE (Q,'(/,'' WIND VELOCITY: '',F6.1,1X,''KNOTS'',/,
     *             '' VISIBILITY:    '',F6.1,1X,''NMI'',/)')
     *           WIND*CMPSTKNT, VIS*CKMTNMI
      WRITE (*,'(''  TARGET   '',4(6X,I1,10X))') (I,I=1,NUMTGT)
      WRITE (Q,'(''  TARGET   '',4(6X,I1,10X))') (I,I=1,NUMTGT)
      WRITE (*,'(/,'' ALTITUDE  '',4A17)') (LABEL(1),I=1,NUMTGT)
      WRITE (*,'(''   FEET    '',4A17)') (LABEL(2),I=1,NUMTGT)
      WRITE (Q,'(/,'' ALTITUDE  '',4A17)') (LABEL(1),I=1,NUMTGT)
      WRITE (Q,'(''   FEET    '',4A17)') (LABEL(2),I=1,NUMTGT)
      DO 1 I=1,NUMHT
        WRITE (*,200) NINT(PREDHT(I)*CKMTOFT),
     *                ((PERFR(L,J,I)*CKMTNMI,L=1,3),J=1,NUMTGT)
        WRITE (Q,200) NINT(PREDHT(I)*CKMTOFT),
     *                ((PERFR(L,J,I)*CKMTNMI,L=1,3),J=1,NUMTGT)
 1    CONTINUE
      WRITE (Q,'(/)')
      WRITE (Q,*) CHAR(12)
      WRITE (*,*) ' '
      WRITE (*,*) 'TYPE <RETURN> TO CONTINUE  '
      READ (*,'(A)') CONT
      RETURN
  200 FORMAT (2X,I5,4(2X,3(1X,F4.1)))
      END
C
      SUBROUTINE   TRNSMTA
C     *******************
C
      COMMON /SUBPERF/ NUMHT,TDT(5),TGTX(5),TGTY(5),NUMTGT
      COMMON /ENVIRO/HEIGHT(55),P(55),T(55),RH(55),VIS,HT0,PR0,FF
      COMMON /CALVALS/ AH(55),BAERO(55),EH(55),EOMUNIT(55)
      COMMON /COMPPER/ RA(18,15),TRANS(18,15)
      COMMON /COMPPNT/ PREDHT(15)
      COMMON /MISCELL/ ANGLE(18),NMAX,NRAY
      DOUBLE PRECISION SUMEH,H1,H2,RE
      REAL H(30)
      RE = FNERAD (HEIGHT, EOMUNIT, NMAX)
      DO 1000 I =1, NMAX
         H(I) = HEIGHT(I) * 0.001
 1000 CONTINUE
      DO 3000 I = 1, NRAY
         ANGL = ANGLE(I)
          H1  = .015
         SUMEH = 0.
         BS = 0.
         SLNTRNG = 0.
         DO 2000 J = 1, NUMHT
             H2 = PREDHT(J)
C
            CALL INTGRTE ( H1,  H2, ANGL, TSR, EH, H, RE, QTY, NMAX)
C           ==============
            SUMEH = SUMEH + QTY
C
            CALL INTGRTE (H1, H2, ANGL, TSR, BAERO, H, RE, QTY, NMAX)
```

```
C           ===============
            BS = BS + QTY
            TAUA = EXP(-BS)
            IF (TAUA.LT.1.E-7) TAUA = 1E-7
            TAUM = FNPOLY(SUMEH)
            IF (TAUM.LT.1.E-7) TAUM = 1E-7
            TAU = TAUM * TAUA
            TRANS(I,J) = TAU
            SLNTRNG = SLNTRNG + TSR
            RA(I,J) = SLNTRNG
            H1 = H2
 2000     CONTINUE
 3000 CONTINUE
      RETURN
      END
C
      FUNCTION AEROSOL (HUMIDTY,WIND,VIS,HEIGHT,NMAX,J)
C     *******************
C
      DIMENSION HUMIDTY(55),HEIGHT(55)
      COMMON /SUBAERO/ HT(10),RHCT(6,10),RHC5(6,10),VCT(6,10),VC5(6,10)
      COMMON /CALVALS/ AH(55),BAERO(55),EH(55),EOMUNIT(55)
      REAL       BETAH(2)
      REAL       BE5(2)
      ALT = HEIGHT(J) * 0.001
      REL = HUMIDTY(J)
      IF (REL.LT.35.) REL = 35.
      IF (WIND.LT.4.) THEN
         V = 0.5
      ELSE
         V = WIND - 3.5
      ENDIF
      I = 1
 1000 CONTINUE
      IF (.NOT.(ALT.GE.HT(I).AND.I.NE.10)) GOTO 1100
         I = I + 1
      GOTO 1000
 1100 CONTINUE
      IF (I.EQ.1) I = 2
      DO 1200 K = 1,2
         TERM1 = RHCT(1,I) + RHCT(2,I)*REL + RHCT(3,I)*REL**2
         TERM2 = RHCT(4,I)*REL**3 + RHCT(5,I)*REL**4 + RHCT(6,I)*REL**5
         CRT   = TERM1 + TERM2
         TERM1 = VCT(1,I) + VCT(2,I)*V + VCT(3,I)*V**2
         TERM2 = VCT(4,I)*V**3 + VCT(5,I)*V**4 + VCT(6,I)*V**5
         CVT   = TERM1 + TERM2
         TERM1 = RHC5(1,I) + RHC5(2,I)*REL + RHC5(3,I)*REL**2
         TERM2 = RHC5(4,I)*REL**3 + RHC5(5,I)*REL**4 + RHC5(6,I)*REL**5
         CR5   = TERM1 + TERM2
         TERM1 = VC5(1,I) + VC5(2,I)*V + VC5(3,I)*V**2
         TERM2 = VC5(4,I)*V**3 + VC5(5,I)*V**4 + VC5(6,I)*V**5
         CV5   = TERM1 + TERM2
         BAVG = CVT * CRT
         BETA5 = CR5 * CV5
         IF (HT(I).LE.1.25) THEN
           IF (I.LE.2.AND.WIND.LE.4.) BAVG = BAVG * 1.2
           IF (I.EQ.3.AND.WIND.LE.4.) BAVG = BAVG * 1.1
           IF (I.LE.3.AND.WIND.GT.10.)BETA5= BETA5*(.95+(WIND-10.)*.006)
         ENDIF
         BETAH(K) = BAVG
         BE5(K)   = BETA5
         IF (ALT.GE.4.) GOTO 1300
         I = I - 1
 1200 CONTINUE
      DH = HT(I+2) - HT(I+1)
      DZ = ALT - HT(I+1)
      BAVG = BETAH(1) * (BETAH(2)/BETAH(1))**(DZ/DH)
      BVIS = BE5(1) * (BE5(2)/BE5(1))**(DZ/DH)
      GOTO 1400
 1300 CONTINUE
      BAVG = BETAH(K)
      BVIS = BE5(K)
```

```
 1400 CONTINUE
      AEROSOL = BAVG
      IF (VIS.GT.0.) THEN
         AEROSOL = AEROSOL * (3.91/BVIS)/VIS
      ELSE
         IF (J.EQ.1) VIS = 3.91/BVIS
      ENDIF
      RETURN
      END
C
      REAL FUNCTION EXPINT (H1, H, X, IFIRST, NMAX)
C     *******************
C
      DOUBLE PRECISION HT,H1,H2
      INTEGER IFIRST
      REAL    H(30),X(30)
          I1 = IFIRST - 1
C         PRINT *, IFIRST,I1
      IF (IFIRST.GT.1) THEN
         HT = (H1 - H(I1)) / (H(IFIRST) - H(I1))
C        PRINT *, X(IFIRST),X(I1)
         XT = X(IFIRST) / X(I1)
         EXPINT = X(I1) * XT**HT
      ELSE
         EXPINT = X(1)
      ENDIF
      RETURN
      END
C
      REAL FUNCTION FNINTRP (YIN, X, Y, I)
C     ********************
C
      INTEGER  I, I1
      REAL     F, X(18), Y(18), YIN
      I1 = I - 1
      IF (I.GT.1) THEN
         F = (YIN - Y(I1)) / (Y(I) - Y(I1))
         FNINTRP = X(I1) + (X(I) - X(I1)) * F
      ELSE
         FNINTRP = X(1)
      ENDIF
      RETURN
      END
C
      REAL FUNCTION FNPOLY (TERM1)
C     *********************
C
      DOUBLE PRECISION TERM1,TERM,A
      TERM = TERM1 * 100.
      A = -1.7476382E-10 * TERM
      A = TERM * (A + 6.6253610E-8)
      A = TERM * (A - 9.4287655E-6)
      A = TERM * (A + 6.2482967E-4)
      A = TERM * (A - 4.6695454E-2)
      FNPOLY = A - 1.3993507E-2
      FNPOLY = 10**FNPOLY
      RETURN
      END
C
      INTEGER FUNCTION INDXFN (H1,H,NMAX)
C     ***********************
C
      DOUBLE PRECISION H1,H2
      REAL       H(30)
       INDXFN = 1
 1000 CONTINUE
      IF (.NOT.(H(INDXFN).LE.H1 .AND. INDXFN .LT. NMAX)) GOTO 1100
         INDXFN = INDXFN + 1
      GOTO 1000
 1100 CONTINUE
      RETURN
      END
```

```
C
      SUBROUTINE INTGRTE (H1,H2,ANG, SR, X, H, RE, QTY, NMAX)
C     *******************
C
      DOUBLE PRECISION H1,H2,RE,HPERP,ASQUARE,RHOP,RHO0
     *SINT,COST,SLANTR,QH1,QH2,QHP,HT1,HT2
      INTEGER    INDXFN, IFIRST, ILAST, JP
      REAL       ANG, EXPINT,H(30),X1,X2
      REAL       INTG, QEXP, QTY,RP
      REAL       SR, SRT, X(30)
      SRT      = 0.
      QEXP     = 0.
      SINT     = SIN(ANG / 57.2958)
      COST     = COS(ANG / 57.2958)
      RHO0     = RE + 0.015
      ASQUARE = (SINT * RHO0) ** 2
      IFIRST   = INDXFN  (H1, H, NMAX)
      QH1      = EXPINT (H1, H, X, IFIRST, NMAX)
      ILAST    = INDXFN  (H2, H, NMAX)
C     PRINT *, IFIRST,ILAST
      QH2      = EXPINT (H2, H, X, ILAST, NMAX)
      IF (H1.NE.0.015) GOTO 1200
      RP       = -RHO0 * COST
      IF (RP.LE.0.) GOTO 1200
      RHOP     = RHO0 * SINT
      HPERP    = RHOP - RE
      IF (HPERP.GT.0.) GOTO 1000
      HPERP    = 1.E-4
 1000 CONTINUE
      JP       = INDXFN  (HPERP, H, NMAX)
      QHP      = EXPINT (HPERP, H, X, JP, NMAX)
      X1       = QHP
      HT1      = HPERP
      DO 1100 I = JP, IFIRST
         X2    = X(I)
         HT2   = H(I)
         IF (I.EQ.IFIRST) THEN
            X2 = QH1
            HT2 = H1
         ENDIF
C
         CALL TAYLOR (HT1,HT2,RE, ASQUARE, X1, X2, INTG, SLANTR)
C        ========================
         QEXP  = QEXP + INTG
         SRT   = SRT  + SLANTR
         X1    = X2
         HT1  = HT2
 1100 CONTINUE
      QEXP     = 2. * QEXP
      SRT      = 2. * SRT
 1200 CONTINUE
      X1       = QH1
      HT1      = H1
      DO 1300 I = IFIRST, ILAST
         X2    = X(I)
         HT2  = H(I)
         IF (I.EQ.ILAST) THEN
            X2 = QH2
          HT2 = H2
         ENDIF
C
         CALL TAYLOR (HT1,HT2,RE, ASQUARE, X1, X2, INTG, SLANTR)
C        ====================
         QEXP  = QEXP + INTG
         SRT   = SRT  + SLANTR
         X1    = X2
         HT1   = HT2
 1300 CONTINUE
      QTY      = QEXP
      SR       = SRT
      RETURN
      END
```

```
C
      SUBROUTINE   PROFILE
C     ********************
C
      LOGICAL GRID
      COMMON /ENVIRO/  HEIGHT(55),PRESSUR(55),TEMP(55),HUMIDTY(55),
     *                 VIS,HTZERO,PRZERO,WIND
      COMMON /CALVALS/ AH(55),BAERO(55),EH(55),EOMUNIT(55)
      COMMON /MISCELL/ ANGLE(18),NMAX,NRAY
      COMMON /LUNITS/  LUIN,LUERR,LUOUT
      DOUBLE PRECISION HT1
      VAPOR(T,P)=(1.0007+(3.46E-6*P))*6.1121*EXP(17.502*T/(240.97+T))
      STAR(T,E,P) = T*(1.0 + 0.378*E/(P - E))
      ABSOLUT(E,T) = E/(4.651E-3*T)
      HT0 = HTZERO
      PR0 = PRZERO
      DO 1000 I = 1, NMAX
         PR1 = PRESSUR(I)
         TA  = TEMP(I)
      ES = (1.0007 + (3.46E-6*PR1))*
     &     6.1121*EXP(17.502*TA/(240.97 + TA))
      EA = HUMIDTY(I)*ES/100.0
      TA = TA + 273.15
      TSTAR1 = STAR(TA,EA,PR1)
      IF (I.EQ.1) TSTAR0 = TSTAR1
      HT1 = HT0 + 29.286*ALOG(PR0/PR1)*(TSTAR1 + TSTAR0)*0.5
      IF (ABS(HT1).LT.0.1) HT1 = 0
      HEIGHT(I) = HT1
          AH(I) = ABSOLUT(EA,TA)
          EOMUNIT(I) = 77.53*PR1/TA -0.043*EA + HT1/6.356776
        BAERO(I) = AEROSOL(HUMIDTY,WIND,VIS,HEIGHT,NMAX,I)
        B = 6.08 * (296.0/TA - 1.0)
        PN = PRESSUR(I) - EA
        EH(I) = (EA*EXP(B) + 2.E-3*PN)/1013.0
        EH(I) = EH(I)*AH(I)*0.1
        HT0 = HT1
        PR0 = PR1
C       TSTAR0 = TSTAR1
 1000 CONTINUE
      IF (HEIGHT(1).EQ.0.) GOTO 1200
      TA1 = TEMP(1) + 273.15
      PR1 = PRESSUR(1)
      EA = VAPOR((TA1 - 273.15),PR1) * HUMIDTY(1)*0.01
      TSTR1 = STAR(TA1,EA,PR1)
      TA = TA1 + .0065*HEIGHT(1)
      IF (PRZERO.EQ.PRESSUR(1).OR.HTZERO.EQ.0.) THEN
         TSTR = TSTR1
      ELSE
         C = 14.643 * ALOG(PRZERO/PRESSUR(1))
         A = (HTZERO - 2.*HEIGHT(1) + 2.*C*TSTR1) / (2. * C)
         B = TSTR1 * HTZERO / (2. * C)
         D = 1. - 4.*B/A**2
         IF (D .LT. 0.) D = 0.
         TSTR = A*(SQRT(D) - 1.0)/2.0
      ENDIF
      PS = PRZERO * EXP(HTZERO/(29.286*TSTR))
      A = HTZERO + 29.286*TSTR*ALOG(PRZERO/PS)
      IF (A.NE.0.) TSTR = -HTZERO / 29.286 / ALOG(PRZERO/PS)
      A = PS * (TSTR - TA1) / (TSTR - 0.622*TA)
      RHS = 100. * A / VAPOR((TA - 273.15),PS)
      NMAX = NMAX + 1
      DO 1100 I = NMAX,2,-1
         HEIGHT(I) = HEIGHT(I-1)
         AH(I) = AH(I-1)
         EOMUNIT(I) = EOMUNIT(I-1)
         EH(I) = EH(I-1)
         BAERO(I) = BAERO(I-1)
         PRESSUR(I) = PRESSUR(I-1)
         TEMP(I) = TEMP(I-1)
         HUMIDTY(I) = HUMIDTY(I-1)
 1100 CONTINUE
      HEIGHT(1) = 0.
```

```
      A = HEIGHT(3) - HEIGHT(2)
      B = BAERO(3) / BAERO(2)
      BAERO(1) = BAERO(2) * B**(HEIGHT(2)/A)
      B = EH(3) / EH(2)
      EH(1) = EH(2) * B**(HEIGHT(2)/A)
      AH(1) = ABSOLUT(A,TA)
      EOMUNIT(1) = 77.53*PS/TA - 0.043*A
      PRESSUR(1) = PS
      TEMP(1) = TA - 273.15
      HUMIDTY(1) = RHS
 1200 CONTINUE
C
      CALL PRINTI (HTZERO,HUMIDTY,PRESSUR,PRZERO,TEMP,WIND,
     &               VIS,HEIGHT,NMAX,LUERR)
C     ===================
      RETURN
      END
C
      SUBROUTINE TAYLOR (HT1,HT2,RE,ASQUARE, X1, X2, INTG, SLANTR)
C     **********************
C
      DOUBLE PRECISION RHO1,RHO2,RE,RBAR,RHOB,ASQUARE,TEMP
     *R1,R2,DELH,SLANTR,XB,HT1,HT2
      REAL   ALPHA, FBAR, FDEL2BA, FDEL4BA
      REAL   INTG, IT1, IT2, IT3
      REAL     XR,X1,X2
      DELH     = HT2 - HT1
      RHO2     = RE + HT2
      RHO1     = RE + HT1
      TEMP = RHO1**2 - ASQUARE
      IF (TEMP .LT. 1.0) PRINT '('' AT R1 '',3G15.7)',RHO1,ASQUARE,TEMP
      IF (TEMP .GT. 0.) THEN
        R1 = SQRT (TEMP)
      ELSE
        R1 = 0.
      ENDIF
      TEMP = RHO2**2 - ASQUARE
      IF (TEMP .LT. 1.0) PRINT '('' AT R2 '',3G15.7)',RHO2,ASQUARE,TEMP
      IF (TEMP .GT. 0.) THEN
        R2 = SQRT (TEMP)
      ELSE
        R2 = 0.
      ENDIF
      SLANTR   = R2 - R1
      RHOB     = 0.5 * (RHO1 + RHO2)
      RBAR     = SQRT (RHOB**2 - ASQUARE)
      XB       = SQRT (X1 * X2)
      XR =  X2/X1
      ALPHA    = ALOG(XR) / (RHO2 - RHO1)
      FBAR     = RHOB * XB / RBAR
      FDEL2BA  = ALPHA**2 * FBAR - ASQUARE * XB * (2 * ALPHA - 3 *RHOB
     *            / RBAR**2)/ RBAR**3
      FDEL4BA  = 5 * RHOB * (3 + 4 * ALPHA * RHOB - 7 * RHOB**2/RBAR**2
     *            ) / RBAR**2
      FDEL4BA  = 3 * (ALPHA * (4 + 6 * ALPHA * RHOB) - FDEL4BA) /
     *            RBAR**2
      FDEL4BA  = ALPHA**4 * FBAR - ASQUARE * XB * (4 * ALPHA**3 -
     *            FDEL4BA) / RBAR**3
      IT1      = FBAR * DELH
      IT2      = FDEL2BA * DELH**3 / 24
      IT3      = FDEL4BA * DELH**5 / 1920
      INTG     = IT1 + IT2 + IT3
      RETURN
      END
C
      REAL FUNCTION FNMDTD (X, Y, R, A, B, EX, EY, C)
C     ********************
C
      REAL EX,EY,FF,X
      DATA SQ7I /0.377964473/
      IF (C .GT. 1.0) THEN
         FF = C * (R * EX / X) * (R * EY /Y) * 0.3927
```

```
         IF (FF .GT. 80.0) FF = 80.0
         FNMDTD = A + B * R * SQ7I * EXP(FF) / SQRT(X * Y / C)
      ELSE
         TX = SQRT(1.0 + (R * EX / X)**2)
         TY = SQRT(1.0 + (R * EY / Y)**2)
         FNMDTD = A + B * R * SQRT (TX * TY) / SQRT (X * Y)
      ENDIF
      RETURN
      END
C
      REAL FUNCTION FNERAD (HEIGHT, EOMUNIT, NMAX)
C     ******************
C
      INTEGER    NMAX
      REAL       EOMUNIT(55), HEIGHT(55), S1, S2, S3, S4, SLOPE
      S1  = 0.
      S2  = 0.
      S3  = 0.
      S4  = 0.
      DO 1000 I = 1, NMAX
         H = HEIGHT(I)
         EM = EOMUNIT(I)
         S1 = S1 + H
         S2 = S2 + H*H
         S3 = S3 + EM
         S4 = S4 + EM*H
 1000 CONTINUE
      FNERAD = 1000.*(NMAX*S2 - S1*S1)/(NMAX*S4 - S3*S1)
      RETURN
      END
C
      SUBROUTINE PERFORM
C     ****************
C
      COMMON /PERFPNT/ PERFR(3,5,15)
      COMMON /COMPPER/ RA(18,15),TRANS(18,15)
      COMMON /COMPPNT/ PREDHT(15)
      COMMON /FLIRPAR/ A1(3),A2(3),EX(3),EY(3),CRIT(3)
      COMMON /MISCELL/ ANGLE(18),NMAX,NRAY
      COMMON /SUBPERF/ NUMHT,TDT(5),TGTX(5),TGTY(5),NUMTGT
      REAL TRANDUM(18)
      REAL SNRPDET(18)
      REAL MDTD
      REAL RADUM(18)
         DO  1400 J=1, NUMHT
            DO 1000 K=1, NRAY
               RADUM(K)   = RA(K,J)
               TRANDUM(K) = TRANS(K,J)
 1000       CONTINUE
            DO 1300 M=1,NUMTGT
              DO 1200 L=1,3
                IR = 1
 1100           CONTINUE
                  DELT = TDT(M)
                  TI = DELT * TRANDUM(IR)
                  R    = RADUM(IR)
                  MDTD = FNMDTD
     &            (TGTX(M),TGTY(M),R,A1(L),A2(L),EX(L),EY(L),CRIT(L))
                  SNRPDET(IR) = ALOG10(TI/MDTD)
                  SN RPDET(IR) = ALOG10(TI/MDTD)
                  IF (SNRPDET(IR) .LT. 0.0) GOTO 1150
                  IR = IR + 1
                  IF (IR .LE. NRAY) GOTO 1100
 1150           CONTINUE
                IF (IR .LE. 1) SR = 0.0
                IF (IR .GE. 2 .AND. IR .LE. NRAY) THEN
                   SR = FNINTRP (0.0, RADUM, SNRPDET, IR)
                ENDIF
                IF (IR .GT. NRAY) SR = RADUM(NRAY)
                IF (SR .LT. PREDHT(J)) SR = 0.0
                PERFR(L,M,J) = SR
 1200         CONTINUE
```

```
 1300       CONTINUE
 1400    CONTINUE
      RETURN
      END
C
         SUBROUTINE PRINT1 (ZSFC,RH,P,PSFC,T,WNDSFC,VISFC,Z,NLEV,Q)
C        *********************
C
         CHARACTER*24 LOCAT1,SNAME1,DTG1
         INTEGER Q
         DIMENSION RH(NLEV),P(NLEV),T(NLEV),Z(NLEV)
         LOCAT1 = 'FROM UFLR'
         DTG1 = 'SOUNDING FILE FOR PREOS'
      WRITE (Q,100)
      WRITE (Q,100)
      WRITE (Q,100)
      WRITE (Q,200) LOCAT1
      WRITE (Q,200) DTG1
      WRITE (Q,100)
      WRITE (Q,300)
      WRITE (Q,100)
      WRITE (Q,100)
      WRITE (Q,400) WNDSFC
      WRITE (Q,500) VISFC
      WRITE (Q,100)
      WRITE (Q,100)
      WRITE (Q,100)
      WRITE (Q,600) ZSFC
      WRITE (Q,700) PSFC
      WRITE (Q,100)
      WRITE (Q,100)
      WRITE (Q,100)
      WRITE (Q,100)
      WRITE (Q,100)
      WRITE (Q,800)
      WRITE (Q,900)
      DO 1 I=1,NLEV
      WRITE (Q,1000) I,Z(I),P(I),T(I),RH(I)
1     CONTINUE
      RETURN
100   FORMAT ('**********')
200   FORMAT (A24)
300   FORMAT ('M',3X,'E',4X,'U')
400   FORMAT (F16.1,' METERS PER SECOND FOR WIND VELOCITY')
500   FORMAT (F16.1,' KILOMETERS FOR HORIZONTAL SURFACE VISIBILITY')
600   FORMAT (F16.1,' METERS RADIOSONDE LAUNCH HEIGHT')
700   FORMAT (F16.1,' MILLIBARS RADIOSONDE LAUNCH PRESSURE')
800   FORMAT (2X,'I',4X,'Z',18X,'P',8X,'T',5X,'RH')
900   FORMAT ('1***5***10***15***20***25***30***35***40***45***50')
1000  FORMAT (1X,I2,1X,F7.1,13X,F6.1,3X,F5.1,2X,F5.1)
      END
C
C
      BLOCK DATA UNITS
C     ****************
      COMMON /LUNITS/ LUIN, LUERR, LUOUT
      DATA LUIN/2/, LUERR/3/, LUOUT/10/
      END
C
      BLOCK DATA BLCKDAT
C     *****************
C
      COMMON /MISCELL/ ANGLE(18),NMAX,NRAY
      COMMON /SUBAERO/ HT(10),RHCT(6,10),RHC5(6,10),VCT(6,10),VC5(6,10)
      COMMON /SUBPERF/ NUMHT,TDT(5),TGTX(5),TGTY(5),NUMTGT
      COMMON /COMPPNT/ PREDHT(15)
      DATA NRAY   / 18/
      DATA NUMHT  / 15/
      DATA HT     /0.0, 0.25, 0.5, 0.75, 1.0, 1.5, 2.0, 2.5, 3.0, 4.0/
      DATA ANGLE  /0.5,25.,45., 62., 82., 85., 86., 87., 87.5, 88.,
     *             88.5, 89., 89.25, 89.5, 89.65, 89.8, 89.9, 90.1/
      DATA PREDHT / .1524,  .3048,  .4572,  .6096,  .7620,  .9144,
```

```
*     1.0668, 1.2192, 1.5240, 2.2860, 3.0480, 4.5720, 6.0960,
*     7.6200, 9.1440/
 DATA RHCT   /
* -2.45940E+00,  2.31733E-01,  -8.42434E-03,  1.49617E-04,
* -1.29971E-06,  4.43136E-09,  -1.86198E+00,  1.75467E-01,
* -6.37961E-03,  1.13312E-04,  -9.84377E-07,  3.35632E-09,
* -1.43224E+00,  1.34935E-01,  -4.90491E-03,  8.70970E-05,
* -7.56429E-07,  2.57831E-09,  -1.11195E+00,  1.04754E-01,
* -3.80769E-03,  6.76104E-05,  -5.87156E-07,  2.00119E-09,
* -8.71668E-01,  8.21378E-02,  -2.98632E-03,  5.30380E-05,
* -4.60703E-07,  1.57051E-09,  -5.72775E-01,  5.39713E-02,
* -1.96234E-03,  3.48527E-05,  -3.02745E-07,  1.03202E-09,
* -4.15996E-01,  3.91913E-02,  -1.42486E-03,  2.53035E-05,
* -2.19755E-07,  7.48903E-10,  -3.30701E-01,  3.11432E-02,
* -1.13193E-03,  2.00957E-05,  -1.74480E-07,  5.94448E-10,
* -2.83120E-01,  2.66638E-02,  -9.69172E-04,  1.72068E-05,
* -1.49401E-07,  5.09007E-10,  -2.46425E-01,  2.32047E-02,
* -8.43381E-04,  1.49715E-05,  -1.29969E-07,  4.42687E-10/
 DATA VCT  /
*  3.86190E-02,  1.31683E-01,  -5.17218E-02,  1.06845E-02,
* -8.16258E-04,  2.32638E-05,   6.62653E-02,  1.31835E-01,
* -5.19959E-02,  1.06615E-02,  -8.12327E-04,  2.30867E-05,
*  1.02555E-01,  1.29651E-01,  -5.13495E-02,  1.04779E-02,
* -7.97276E-04,  2.26217E-05,   1.48991E-01,  1.24613E-01,
* -4.94785E-02,  1.00658E-02,  -7.65523E-04,  2.17177E-05,
*  2.04277E-01,  1.19998E-01,  -4.77106E-02,  9.63302E-03,
* -7.30607E-04,  2.06831E-05,   3.41840E-01,  1.06789E-01,
* -4.26887E-02,  8.46758E-03,  -6.37369E-04,  1.79116E-05,
*  5.03343E-01,  8.60082E-02,  -3.45636E-02,  6.75406E-03,
* -5.05127E-04,  1.41102E-05,   6.60760E-01,  6.11932E-02,
* -2.46867E-02,  4.78597E-03,  -3.57129E-04,  9.95953E-06,
*  7.85007E-01,  4.19189E-02,  -1.68488E-02,  3.20705E-03,
* -2.37354E-04,  6.57239E-06,   9.28120E-01,  1.42177E-02,
* -5.78919E-03,  1.10629E-03,  -8.23232E-05,  2.29040E-06/
 DATA RHC5  /
* -6.94393E+00,  6.59361E-01,  -2.39796E-02,  4.26102E-04,
* -3.70361E-06,  1.26383E-08,  -6.00926E+00,  5.70437E-01,
* -2.07531E-02,  3.68912E-04,  -3.20778E-06,  1.09499E-08,
* -5.43463E+00,  5.15297E-01,  -1.87411E-02,  3.33003E-04,
* -2.89403E-06,  9.87226E-09,  -4.95916E+00,  4.69858E-01,
* -1.70866E-02,  3.03556E-04,  -2.63765E-06,  8.99549E-09,
* -4.65080E+00,  4.40152E-01,  -1.59982E-02,  2.84052E-04,
* -2.46658E-06,  8.40612E-09,  -4.27454E+00,  4.03999E-01,
* -1.46790E-02,  2.60517E-04,  -2.26116E-06,  7.70140E-09,
* -4.04180E+00,  3.81728E-01,  -1.38689E-02,  2.46133E-04,
* -2.13632E-06,  7.27600E-09,  -3.92516E+00,  3.70591E-01,
* -1.34638E-02,  2.38915E-04,  -2.07329E-06,  7.05968E-09,
* -3.85834E+00,  3.64325E-01,  -1.32402E-02,  2.35020E-04,
* -2.04011E-06,  6.94847E-09,  -3.81896E+00,  3.60510E-01,
* -1.31008E-02,  2.32530E-04,  -2.01835E-06,  6.87378E-09/
 DATA VC5  /
*  4.23048E-01,  2.80934E-02,  -2.55180E-05,  1.16505E-03,
* -1.31793E-04,  4.53123E-06,   4.99859E-01,  2.23627E-02,
*  6.78339E-04,  9.19860E-04,  -1.09556E-04,  3.85300E-06,
*  5.75766E-01,  2.00378E-02,  -1.21409E-04,  9.10420E-04,
* -1.02268E-04,  3.49763E-06,   6.48294E-01,  1.82058E-02,
* -5.62497E-04,  8.08765E-04,  -8.77535E-05,  2.96501E-06,
*  7.13230E-01,  1.67557E-02,  -1.07838E-03,  7.35784E-04,
* -7.57756E-05,  2.50340E-06,   8.19816E-01,  9.58017E-03,
* -4.06924E-04,  4.41230E-04,  -4.73987E-05,  1.58518E-06,
*  8.94962E-01,  6.05276E-03,  -4.75565E-04,  2.93650E-04,
* -2.98501E-05,  9.69720E-07,   9.43653E-01,  2.78353E-03,
*  7.26492E-05,  1.05978E-04,  -1.30613E-05,  4.63702E-07,
*  9.68667E-01,  1.65996E-03,  -1.01433E-04,  9.07833E-05,
* -9.61713E-06,  3.08901E-07,   9.90584E-01, -7.77846E-05,
*  1.56731E-04, -1.99247E-06,  -6.92168E-07,  3.13041E-08/
 END
C
 BLOCK DATA CLASDAT
C ************
 COMMON /FLIRPAR/ A1(3),A2(3),EX(3),EY(3),CRIT(3)
 DATA CRIT/  1.0,     67.0,     400.0/
```

APPENDIX 2

COMPUTER PROGRAM UFLRATM

```
C
C     PROGRAM UFLRATM
C     ===============
C
C     *** PURPOSE ***
C     THE FOLLOWING PROGRAM IS USED TO SIMULATE RADIOSONDE PROFILES BY
C     TAKING  ACTUAL PRESSURE, TEMPERATURE  AND  RELATIVE HUMIDITY FOR
C     HEIGHT  LEVELS  FROM  0 TO  28,000  FT., AND DITHERING THESE VA-
C     LUES EVERY 1,000 FT. USING A GAUSSIAN RANDOM NUMBER GENERATOR.
C
C     *** VARIABLE DEFINITIONS ***
C
C       NREP = THE DESIRED NUMBER OF REPLICATIONS
C     SIGMAP = STANDARD DEV. APPLIED TO PRESSURE DATA GENERATION
C     SIGMAT = STANDARD DEV. APPLIED TO TEMPERATURE DATA GENERATION
C     SIGMARH= STANDARD DEV. APPLIED TO REL.HUMIDITY DATA GENERATION
C          R = GAUSSIAN RANDOM DEVIATE GENERATOR
C         PR = DITHERED PRESSURE     AT A SPECIFIC ELEVATION
C         TE = DITHERED TEMPERATURE  AT A SPECIFIC ELEVATION
C         RE = DITHERED REL HUMIDITY AT A SPECIFIC ELEVATION
C      NDATA = NUMBER OF HEIGHT LEVELS
C
C     *** VARIABLE DECLARATION ***
C
      REAL*8 DSEED
      INTEGER NREP,COUNT, IC, NDATA,N,NR,I
C
      REAL SIGMAP,SIGMAT,SIGMAHR,PR(29),TE(29),RE(29),R(120),PRESSO,
     *TEMP,RELH,HEIGHT,PRES
      DATA NREP/10/,COUNT/0/,NDATA/29/,N/0/,SIGMAP/1.5/,SIGMAT/4./,
     *SIGMARH/8/
C
C     *** MAIN PROGRAM ***
C
      OPEN(UNIT=10, FILE='CAL1 PRE', STATUS='OLD')
      OPEN(UNIT=11, FILE='CAL1F OUT ', STATUS='NEW')
      DSEED = 123457.D0
      DO 10 N = 1,NREP
        DO 5 J= 1,NDATA
  5       READ (10,*) PR(J),TE(J),RE(J)
        COUNT = COUNT + 1
        I  = 1
        IC = 0
        HEIGHT= 0.0
C       'INTRODUCE HERE THE ACTUAL PRESSURE AT SEA LEVEL= PRESSO'
        PRESSO= 1015.4
        WRITE(11,200) COUNT
 200    FORMAT(' ','   RESULTS OF THE REPLICATION #',I3 )
        WRITE(11,400)
 400    FORMAT('    ================================          ',/,
     *         '                                              ',/,
     *         '   HEIGHT   PRESSURE  TEMPERATURE    REL HUMD',/,
     *         '                                              ')
        NR = 116
        CALL GGNML (DSEED,NR,R)
        DO 20 IC = 1, NDATA
           PRES = PR(IC) + SIGMAP * R(2*I - 1)
           TEMP = TE(IC) + SIGMAT * R(2*I)
           RELH = RE(IC) + SIGMARH* R(2*I + 1)
           I  = I  + 2
           IF(RELH .GT. 100.) RELH =  98.0
           IF(RELH .LT.  0.0) RELH =   2.0
           IF(PRES .GT. PRESSO) PRES = PR(IC) - 1.0
           WRITE (11,600) HEIGHT, PRES, TEMP, RELH
 600       FORMAT(1X,F7.1,5X,F6.1,7X,F6.1,8X,F5.1)
           HEIGHT = HEIGHT + 1000.0
           PRESSO = PRES
 20     CONTINUE
        REWIND 10
 10   CONTINUE
      STOP
      END
```

APPENDIX 3

UNDITHERED RADIOSONDE ATMOSPHERIC PROFILES

FILE: CAL1 PRE

1016.3	22.6	86
981.6	21.9	90
950.2	21.8	37
916.5	20.3	38
880.7	19.1	37
851.1	17.3	35
824.0	16.2	32
795.3	14.4	31
766.7	12.1	27
739.3	9.5	25
709.8	8.3	19
683.9	5.7	15
658.8	4.7	5
636.4	2.4	7
610.1	-0.4	6
590.4	-2.5	10
565.0	-5.2	11
544.7	-7.0	4
525.0	-8.2	7
505.4	-10.8	8
486.3	-12.8	11
464.2	-15.4	11
446.7	-17.2	6
428.8	-19.0	8
411.1	-21.8	41
395.5	-24.3	50
378.3	-27.1	48
362.7	-29.7	42
347.6	-32.0	58

FILE: CAL2 PRE

1016.8	16.3	95
983.7	18.8	63
946.5	20.7	36
914.5	20.6	30
883.8	18.6	37
852.0	17.1	36
821.7	15.2	32
793.7	13.4	32
764.3	11.1	34
737.9	8.9	40
709.4	6.6	39
683.1	4.6	36
659.3	2.7	29
635.9	2.2	8
611.0	-0.3	8
587.8	-3.0	11
565.7	-4.8	5
545.1	-7.0	4
522.3	-9.5	13
502.9	-11.8	14
483.8	-14.1	18
463.9	-16.9	20
445.9	-18.2	18
428.3	-20.3	8
409.5	-23.1	23
393.9	-25.3	47
377.5	-26.6	32
362.2	-29.1	29
346.3	-31.6	57

FILE: CAL3 PRE

1013.5	21.7	91
978.7	19.8	85
944.9	21.0	35
911.4	21.2	28
880.5	19.3	30
849.3	17.4	31
821.1	15.7	27
790.8	13.0	30
764.3	10.5	35
732.3	7.6	42
708.0	5.9	47
682.1	3.6	45
658.2	2.4	32
633.4	0.5	31
609.8	-1.3	16
586.3	-3.6	20
563.8	-5.8	21
542.6	-8.1	21
522.2	-9.8	19
501.0	-11.6	12
481.0	-14.1	15
461.4	-16.5	14
443.1	-18.8	16
425.3	-21.2	64
407.9	-23.4	40
391.8	-25.9	16
375.2	-28.6	11
359.3	-30.2	4
344.7	-32.7	5

FILE: CAL4 PRE

1017.0	14.9	95
981.6	15.1	89
947.2	22.2	18
914.9	20.9	30
882.2	19.8	25
851.8	18.4	18
823.5	16.0	22
794.5	13.3	26
766.1	10.4	37
738.2	7.9	38
710.5	5.5	39
686.9	4.0	23
658.4	2.1	18
634.4	0.6	14
611.1	-0.5	14
588.1	-3.2	15
566.3	-5.5	17
544.1	-7.3	42
522.6	-9.8	34
503.1	-12.4	33
482.4	-14.6	31
463.2	-16.8	32
445.8	-19.2	32
427.5	-20.9	15
415.0	-22.6	5
391.8	-25.9	2
377.6	-27.2	2
362.2	-29.4	3
346.1	-31.5	2

FILE: CAL5 PRE

1015.8	14.3	100
979.7	21.1	35
948.6	23.2	30
913.6	21.6	28
884.2	20.5	23
852.2	18.8	26
819.5	15.8	30
792.0	13.4	32
764.5	10.7	36
737.9	8.2	39
709.8	6.6	24
684.9	4.6	19
660.1	2.7	24
635.3	1.2	16
610.2	-1.0	16
587.0	-2.4	30
565.7	-4.6	37
543.7	-6.9	28
523.7	-9.2	20
503.3	-11.6	41
480.6	-14.2	10
464.2	-15.5	19
445.8	-17.8	49
428.3	-20.3	34
410.1	-22.5	8
394.1	-24.6	6
376.7	-27.1	8
362.2	-29.6	34
346.7	-31.6	53

FILE: CAL6 PRE

1014.8	14.6	98
979.9	19.8	46
949.3	21.6	38
913.4	21.9	20
882.2	20.4	23
851.4	18.4	33
821.3	16.1	30
792.8	13.6	31
764.1	11.3	31
736.6	8.4	39
709.3	5.8	40
684.2	4.7	9
658.0	1.8	19
634.2	0.0	6
609.5	-1.9	6
586.4	-3.4	5
564.8	-5.5	5
543.1	-7.2	12
521.9	-9.5	26
501.7	-11.4	27
482.6	-13.7	28
463.2	-16.6	49
443.9	-18.9	68
426.4	-20.9	74
409.1	-22.5	81
392.1	-24.8	81
375.7	-27.3	82
360.9	-29.1	68
345.7	-31.0	45

FILE: CAL7 PRE

1017.5	15.1	99
984.0	14.6	80
948.1	19.6	33
915.4	18.5	38
882.0	17.2	34
853.0	15.8	34
822.7	14.4	35
793.4	12.0	39
765.4	9.2	45
736.1	7.0	46
708.7	4.6	50
631.9	1.8	44
657.4	0.0	29
631.7	-1.3	36
610.1	-2.5	16
586.0	-4.8	24
563.9	-7.5	28
543.1	-9.6	56
521.2	-11.0	85
500.4	-13.1	87
481.8	-14.9	85
462.4	-16.5	80
443.0	-17.3	52
425.2	-19.8	55
408.2	-22.1	50
392.6	-24.6	54
376.4	-26.8	46
359.7	-29.3	51
345.3	-31.9	55

FILE: CAL8 PRE

1018.6	15.1	92
984.0	13.5	86
949.3	19.7	27
915.4	18.2	31
883.3	16.3	46
852.0	15.1	34
821.5	13.1	37
793.4	11.1	43
765.4	8.9	38
734.4	6.2	45
709.3	4.1	52
683.2	1.8	49
657.4	-0.9	54
633.6	-2.7	34
609.3	-3.8	62
586.3	-4.4	78
563.9	-7.0	85
541.7	-8.6	81
520.7	-10.6	74
500.6	-12.3	56
480.8	-13.8	24
462.4	-16.0	41
444.4	-18.4	42
425.6	-20.9	44
408.5	-22.7	25
392.4	-25.2	17
376.0	-27.8	23
359.8	-30.3	39
345.7	-32.4	27

APPENDIX 4

DITHERED RADIOSONDE ATMOSPHERIC PROFILES

FILE: CAL1A

RESULTS OF THE REPLICATION # 1

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HEIGHT	PRESSURE	TEMPERATURE	REL HUMD
0.0	1015.3	22.0	91.8
1000.0	984.1	20.2	98.0
2000.0	953.4	21.5	19.8
3000.0	916.4	19.3	31.6
4000.0	877.3	18.8	33.8
5000.0	851.5	18.6	30.6
6000.0	822.1	14.5	36.4
7000.0	790.7	15.6	30.6
8000.0	767.7	13.0	26.2
9000.0	740.3	8.5	25.1
10000.0	711.0	8.9	18.7
11000.0	684.1	5.9	19.8
12000.0	663.0	3.0	2.0
13000.0	639.9	1.5	13.1
14000.0	615.1	1.3	2.0
15000.0	592.1	-1.3	18.5
16000.0	567.9	-4.0	9.0
17000.0	541.9	-6.0	10.6
18000.0	526.2	-9.2	2.0
19000.0	505.8	-11.6	3.0
20000.0	488.8	-13.5	27.2
21000.0	462.0	-15.3	2.0
22000.0	443.0	-17.3	6.8
23000.0	427.4	-19.7	2.0
24000.0	409.5	-22.1	30.9
25000.0	399.3	-23.8	47.5
26000.0	380.5	-26.3	50.1
27000.0	363.2	-28.6	57.5
28000.0	346.0	-31.2	41.4

RESULTS OF THE REPLICATION # 2

================================

HEIGHT	PRESSURE	TEMPERATURE	REL HUMD
0.0	1015.3	23.0	99.0
1000.0	980.9	22.9	86.3
2000.0	946.4	20.9	54.8
3000.0	919.3	20.2	31.4
4000.0	884.1	20.8	37.5
5000.0	851.3	19.4	30.8
6000.0	819.6	17.5	23.1
7000.0	798.5	13.2	33.9
8000.0	768.5	12.2	34.2
9000.0	738.6	9.3	27.2
10000.0	709.8	9.3	7.3
11000.0	686.0	6.7	16.2
12000.0	655.8	6.0	2.0
13000.0	639.3	0.3	2.0
14000.0	610.0	-0.3	1.7
15000.0	591.7	-3.4	15.2
16000.0	562.9	-4.9	20.1
17000.0	543.1	-5.6	2.7
18000.0	526.7	-9.1	9.7
19000.0	507.6	-10.3	0.5
20000.0	491.1	-14.8	9.0
21000.0	464.3	-15.9	2.0
22000.0	444.6	-18.4	21.0
23000.0	429.7	-18.4	12.3
24000.0	413.7	-21.9	45.0
25000.0	395.7	-23.6	33.5
26000.0	379.9	-27.4	46.7
27000.0	367.8	-29.8	45.2
28000.0	347.2	-30.9	53.3

RESULTS OF THE REPLICATION # 3

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HEIGHT	PRESSURE	TEMPERATURE	REL HUMD
0.0	1014.4	22.8	86.9
1000.0	985.3	22.5	87.5
2000.0	952.8	21.0	25.3
3000.0	915.3	20.3	50.8
4000.0	878.5	19.8	36.2
5000.0	852.6	17.5	39.4
6000.0	825.2	15.1	14.8
7000.0	793.3	15.2	35.5
8000.0	768.4	10.5	28.0
9000.0	739.4	11.1	31.1
10000.0	707.3	8.2	9.0
11000.0	684.0	6.1	17.5
12000.0	659.7	3.2	25.9
13000.0	634.3	3.8	3.2
14000.0	613.4	-1.6	2.0
15000.0	592.0	-3.1	9.1
16000.0	566.9	-5.7	26.5
17000.0	540.6	-6.3	2.0
18000.0	531.4	-10.1	11.0
19000.0	505.2	-11.0	12.0
20000.0	484.5	-13.2	13.5
21000.0	468.1	-15.5	17.5
22000.0	445.7	-17.8	1.9
23000.0	430.2	-16.9	17.7
24000.0	406.9	-22.7	54.2
25000.0	397.4	-23.7	54.7
26000.0	379.5	-28.2	42.3
27000.0	362.4	-30.6	28.2
28000.0	350.0	-32.4	54.1

RESULTS OF THE REPLICATION # 4

================================

HEIGHT	PRESSURE	TEMPERATURE	REL HUMD
0.0	1015.3	23.5	79.5
1000.0	978.2	21.8	93.3
2000.0	949.2	22.3	47.8
3000.0	915.4	21.0	28.2
4000.0	880.0	19.7	32.4
5000.0	854.9	17.7	23.7
6000.0	826.9	15.9	33.6
7000.0	792.3	12.9	45.4
8000.0	768.0	12.0	30.8
9000.0	737.5	8.6	25.7
10000.0	709.8	9.4	27.1
11000.0	686.0	7.1	3.4
12000.0	655.1	4.5	2.0
13000.0	640.2	2.2	12.3
14000.0	610.1	-0.1	6.8
15000.0	586.3	-2.4	2.0
16000.0	562.6	-4.1	1.8
17000.0	543.9	-5.5	8.2
18000.0	523.3	-8.8	14.8
19000.0	503.8	-13.1	9.8
20000.0	485.0	-12.8	11.4
21000.0	465.7	-15.1	5.1
22000.0	451.5	-18.3	0.4
23000.0	429.3	-18.7	4.2
24000.0	411.4	-22.2	42.4
25000.0	397.3	-25.6	59.8
26000.0	379.6	-27.1	57.7
27000.0	361.2	-30.9	50.0
28000.0	347.4	-31.2	67.4

RESULTS OF THE REPLICATION # 5

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HEIGHT	PRESSURE	TEMPERATURE	REL HUMD
0.0	1015.3	21.7	91.8
1000.0	981.7	23.4	77.4
2000.0	950.5	21.1	26.8
3000.0	910.7	19.2	41.2
4000.0	883.9	18.9	40.8
5000.0	855.4	17.1	37.0
6000.0	822.5	16.2	49.4
7000.0	793.1	14.2	32.5
8000.0	768.1	11.8	19.1
9000.0	742.2	7.8	20.4
10000.0	712.4	9.7	28.2
11000.0	682.7	6.3	11.4
12000.0	658.6	4.5	11.3
13000.0	635.5	1.2	7.5
14000.0	611.0	0.3	16.7
15000.0	590.8	-1.9	22.8
16000.0	562.6	-5.5	18.4
17000.0	542.3	-6.5	6.9
18000.0	524.2	-5.3	2.0
19000.0	505.9	-9.9	7.1
20000.0	484.6	-12.7	7.2
21000.0	462.2	-14.7	19.6
22000.0	444.7	-18.4	15.2
23000.0	429.6	-17.9	12.5
24000.0	411.2	-20.8	43.3
25000.0	393.2	-24.6	57.2
26000.0	378.6	-26.4	51.8
27000.0	358.1	-27.2	46.2
28000.0	343.7	-31.0	63.2

RESULTS OF THE REPLICATION # 6

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HEIGHT	PRESSURE	TEMPERATURE	REL HUMD
0.0	1014.8	22.6	93.3
1000.0	983.7	20.4	98.0
2000.0	949.0	20.5	15.7

3000.0	914.6	21.5	33.8
4000.0	880.6	21.0	48.7
5000.0	851.9	17.7	42.4
6000.0	821.6	16.5	18.5
7000.0	796.8	15.1	36.4
8000.0	767.7	11.8	26.1
9000.0	744.1	7.7	16.1
10000.0	710.5	9.7	2.0
11000.0	682.5	3.8	16.5
12000.0	659.8	5.6	8.4
13000.0	639.1	3.7	2.0
14000.0	614.3	0.1	14.0
15000.0	590.6	-2.2	2.0
16000.0	566.4	-4.8	5.4
17000.0	543.7	-6.3	1.8
18000.0	529.6	-8.3	10.5
19000.0	503.2	-12.4	2.0
20000.0	489.9	-12.0	9.0
21000.0	466.0	-14.8	11.7
22000.0	454.4	-16.7	4.0
23000.0	431.0	-18.3	20.3
24000.0	410.5	-21.3	44.8
25000.0	392.2	-23.3	54.1
26000.0	378.2	-27.4	39.2
27000.0	363.9	-29.0	48.6
28000.0	346.3	-31.2	63.7

RESULTS OF THE REPLICATION # 7
================================

HEIGHT	PRESSURE	TEMPERATURE	REL HUMD
0.0	1015.3	23.9	90.9
1000.0	984.1	19.5	93.9
2000.0	949.2	21.0	43.3
3000.0	921.8	19.5	36.9
4000.0	880.9	18.7	37.7
5000.0	848.4	16.5	37.7
6000.0	823.0	16.3	38.0
7000.0	797.6	11.8	28.7
8000.0	767.0	10.3	28.3
9000.0	742.9	10.2	34.5
10000.0	705.0	7.1	24.6
11000.0	681.0	5.9	23.2
12000.0	661.2	4.5	12.1
13000.0	638.7	0.5	7.4
14000.0	608.5	0.0	9.8
15000.0	590.2	-4.9	16.9
16000.0	568.1	-6.4	13.9
17000.0	543.2	-7.3	7.1
18000.0	524.2	-8.4	22.4
19000.0	509.7	-9.9	11.9
20000.0	483.0	-13.7	10.3
21000.0	462.1	-16.1	6.8
22000.0	446.0	-16.5	6.5
23000.0	431.9	-17.8	0.9
24000.0	410.6	-23.7	45.6
25000.0	396.3	-21.9	64.2
26000.0	373.8	-28.7	42.3
27000.0	359.9	-30.5	61.9
28000.0	348.7	-31.4	60.9

RESULTS OF THE REPLICATION # 8
================================

HEIGHT	PRESSURE	TEMPERATURE	REL HUMD
0.0	1014.2	24.4	97.4
1000.0	978.5	22.3	93.8
2000.0	950.2	20.5	47.5
3000.0	914.2	20.1	44.2
4000.0	879.7	18.6	48.4
5000.0	851.4	16.3	29.0
6000.0	823.1	15.0	20.1
7000.0	795.9	13.5	33.9
8000.0	764.1	11.1	28.3
9000.0	740.2	10.2	18.6
10000.0	712.6	7.3	17.2
11000.0	683.5	5.7	12.2
12000.0	661.5	3.1	2.0
13000.0	636.7	1.9	32.4
14000.0	609.7	0.7	2.0
15000.0	589.8	-2.4	12.7
16000.0	562.7	-4.9	15.9
17000.0	546.0	-6.8	2.4
18000.0	524.8	-9.1	2.0
19000.0	504.4	-11.1	9.7
20000.0	483.8	-14.7	3.5
21000.0	461.7	-15.6	5.2
22000.0	447.1	-17.2	3.5
23000.0	431.4	-20.4	5.0
24000.0	410.4	-20.5	51.3
25000.0	389.7	-24.5	48.9
26000.0	382.7	-26.6	58.4
27000.0	358.4	-27.8	44.9
28000.0	348.7	-33.6	58.7

RESULTS OF THE REPLICATION # 9
================================

HEIGHT	PRESSURE	TEMPERATURE	REL HUMD
0.0	1015.3	22.4	93.3
1000.0	983.5	22.6	83.7
2000.0	949.4	22.7	29.3
3000.0	918.5	19.5	37.0
4000.0	878.1	18.5	46.7
5000.0	850.7	18.8	37.6
6000.0	819.9	15.4	24.1
7000.0	798.0	14.1	25.3
8000.0	768.1	10.5	39.7
9000.0	740.7	11.7	31.1
10000.0	708.3	8.2	12.2
11000.0	682.5	6.2	9.4
12000.0	658.8	5.3	17.7
13000.0	638.6	1.6	9.7
14000.0	609.1	0.2	5.8
15000.0	591.1	-1.5	2.0
16000.0	566.6	-5.6	18.2
17000.0	541.1	-7.1	10.3
18000.0	531.7	-7.8	12.0
19000.0	505.2	-10.7	4.1
20000.0	483.5	-12.4	16.3
21000.0	462.5	-16.8	16.8
22000.0	451.3	-14.9	22.5
23000.0	424.0	-17.8	17.2
24000.0	410.8	-21.6	37.4
25000.0	397.9	-24.6	69.8
26000.0	378.1	-28.2	39.0
27000.0	362.8	-30.1	46.5
28000.0	347.0	-32.2	64.1

RESULTS OF THE REPLICATION # 10
================================

HEIGHT	PRESSURE	TEMPERATURE	REL HUMD
0.0	1015.3	24.6	87.7
1000.0	984.6	19.9	98.5
2000.0	953.2	22.5	29.7
3000.0	915.9	20.3	28.4
4000.0	878.0	18.4	49.8
5000.0	854.8	15.8	34.5
6000.0	824.9	17.8	43.6
7000.0	796.0	15.0	24.7
8000.0	767.0	11.9	29.2
9000.0	741.0	9.3	21.0
10000.0	708.4	9.2	15.0
11000.0	685.3	6.5	18.0
12000.0	662.5	3.0	2.0
13000.0	635.3	2.4	4.8
14000.0	606.2	0.4	3.2
15000.0	589.4	-1.4	5.0
16000.0	568.3	-4.2	2.0
17000.0	544.3	-7.7	2.8
18000.0	525.7	-8.9	12.7
19000.0	504.0	-11.4	1.3
20000.0	484.4	-13.9	6.3
21000.0	471.1	-17.3	2.0
22000.0	444.3	-18.0	1.1
23000.0	424.8	-19.7	2.0
24000.0	411.3	-21.8	43.2
25000.0	394.4	-24.9	54.1
26000.0	380.1	-27.7	49.3
27000.0	360.1	-30.6	35.4
28000.0	344.0	-32.4	57.0

FILE: CAL1B

RESULTS OF THE REPLICATION # 1
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HEIGHT	PRESSURE	TEMPERATURE	REL HUMD
0.0	1015.3	21.3	91.8
1000.0	984.1	18.5	98.0
2000.0	953.4	21.2	19.8
3000.0	916.4	18.4	31.6
4000.0	877.3	18.6	33.8
5000.0	851.5	19.8	30.6
6000.0	822.1	12.8	36.4
7000.0	790.7	16.8	30.6
8000.0	767.7	14.0	26.2
9000.0	740.3	7.6	25.1
10000.0	711.0	9.4	18.7
11000.0	684.1	6.1	19.8
12000.0	663.0	1.3	2.0
13000.0	639.9	0.5	13.1
14000.0	615.1	2.9	2.0
15000.0	592.1	-0.1	18.5
16000.0	567.9	-2.9	9.0
17000.0	541.9	-5.0	10.6
18000.0	526.2	-10.2	2.0
19000.0	505.8	-12.4	3.0
20000.0	488.8	-14.3	27.2
21000.0	462.0	-15.2	2.0
22000.0	443.0	-17.4	6.8
23000.0	427.4	-20.5	2.0
24000.0	409.5	-22.4	30.9
25000.0	399.3	-23.4	47.5
26000.0	380.5	-25.5	50.1
27000.0	363.2	-27.5	57.5
28000.0	346.0	-30.5	41.4

RESULTS OF THE REPLICATION # 2
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HEIGHT	PRESSURE	TEMPERATURE	REL HUMD
0.0	1015.3	23.4	99.0
1000.0	980.9	23.8	86.3
2000.0	946.4	20.1	54.8
3000.0	919.3	20.2	31.4
4000.0	884.1	22.6	37.5
5000.0	851.3	21.5	30.8
6000.0	819.6	18.9	23.1
7000.0	798.5	11.9	33.9
8000.0	768.5	12.3	34.2
9000.0	738.6	9.1	27.2
10000.0	709.8	10.2	7.3
11000.0	686.0	7.7	16.2
12000.0	655.8	7.3	2.0
13000.0	639.3	-1.9	2.0
14000.0	610.0	-0.2	1.7
15000.0	591.7	-4.2	15.2
16000.0	562.9	-4.6	20.1
17000.0	543.1	-4.2	2.7
18000.0	526.7	-10.1	9.7
19000.0	507.6	-9.8	0.5
20000.0	491.1	-16.8	9.0
21000.0	464.3	-16.3	2.0
22000.0	444.6	-19.6	21.0
23000.0	429.7	-17.9	12.3
24000.0	413.7	-22.0	45.0
25000.0	395.7	-23.0	33.5
26000.0	379.9	-27.8	46.7
27000.0	367.8	-29.9	45.2
28000.0	347.2	-29.7	53.3

RESULTS OF THE REPLICATION # 3
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HEIGHT	PRESSURE	TEMPERATURE	REL HUMD
0.0	1014.4	23.1	86.9
1000.0	985.3	23.0	87.5
2000.0	952.8	20.1	25.3
3000.0	915.3	20.3	50.8
4000.0	878.5	20.6	36.2
5000.0	852.6	17.8	39.4
6000.0	825.2	14.0	14.8
7000.0	793.3	16.1	35.5
8000.0	768.4	8.8	28.0
9000.0	739.4	12.8	31.1
10000.0	707.3	8.0	9.0
11000.0	684.0	6.5	17.5
12000.0	659.7	1.7	25.9
13000.0	634.3	5.3	3.2
14000.0	613.4	-2.8	2.0
15000.0	592.0	-3.7	9.1
16000.0	566.9	-6.2	26.5
17000.0	540.6	-5.6	2.0
18000.0	531.4	-11.9	11.0
19000.0	505.2	-11.2	12.0
20000.0	484.5	-13.6	13.5
21000.0	468.1	-15.5	17.5
22000.0	445.7	-18.4	1.9
23000.0	430.2	-14.7	17.7
24000.0	406.9	-23.7	54.2
25000.0	397.4	-23.1	54.7
26000.0	379.5	-29.3	42.3
27000.0	362.4	-31.5	28.2
28000.0	350.0	-32.8	54.1

RESULTS OF THE REPLICATION # 4
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HEIGHT	PRESSURE	TEMPERATURE	REL HUMD
0.0	1015.3	24.4	79.5
1000.0	978.2	21.7	93.3
2000.0	949.2	22.8	47.8
3000.0	915.4	21.7	28.2
4000.0	880.0	20.3	32.4
5000.0	854.9	18.2	23.7
6000.0	826.9	15.6	33.6
7000.0	792.3	11.5	45.4
8000.0	768.0	11.9	30.8
9000.0	737.5	7.6	25.7
10000.0	709.8	10.4	27.1
11000.0	686.0	8.6	3.4
12000.0	655.1	4.3	2.0
13000.0	640.2	2.0	12.3
14000.0	610.1	0.3	6.8
15000.0	586.3	-2.4	2.0
16000.0	562.6	-3.1	1.8
17000.0	543.9	-3.9	8.2
18000.0	523.3	-9.3	14.8
19000.0	503.8	-15.4	9.8
20000.0	485.0	-12.8	11.4
21000.0	465.7	-14.8	5.1
22000.0	451.5	-19.4	0.4
23000.0	429.3	-18.3	4.2
24000.0	411.4	-22.7	42.4
25000.0	397.3	-26.9	59.8
26000.0	379.6	-27.1	57.7
27000.0	361.2	-32.1	50.0
28000.0	347.4	-30.3	67.4

RESULTS OF THE REPLICATION # 5
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HEIGHT	PRESSURE	TEMPERATURE	REL HUMD
0.0	1015.3	20.9	91.8
1000.0	981.7	24.9	77.4
2000.0	950.5	20.5	26.8
3000.0	910.7	18.1	41.2
4000.0	883.9	18.6	40.8
5000.0	855.4	16.9	37.0
6000.0	822.5	16.3	49.4
7000.0	793.1	14.0	32.5
8000.0	768.1	11.5	19.1
9000.0	742.2	6.1	20.4
10000.0	712.4	11.1	28.2
11000.0	682.7	6.9	11.4
12000.0	658.6	4.4	11.3
13000.0	635.5	-0.1	7.5
14000.0	611.0	1.1	16.7
15000.0	590.8	-1.2	22.8
16000.0	562.6	-5.9	18.4
17000.0	542.3	-6.1	6.9
18000.0	524.2	-2.4	2.0
19000.0	505.9	-9.1	7.1
20000.0	484.6	-12.6	7.2
21000.0	462.2	-14.1	19.6
22000.0	444.7	-19.5	15.2
23000.0	429.6	-16.7	12.5
24000.0	411.2	-19.8	43.3
25000.0	393.2	-24.9	57.2
26000.0	378.6	-25.8	51.8
27000.0	358.1	-24.6	46.2
28000.0	343.7	-29.9	63.2

RESULTS OF THE REPLICATION # 6
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HEIGHT	PRESSURE	TEMPERATURE	REL HUMD
0.0	1014.8	22.5	93.3
1000.0	983.7	19.0	98.0
2000.0	949.0	19.3	15.7

3000.0	914.6	22.6	33.8
4000.0	880.6	22.8	48.7
5000.0	851.9	18.0	42.4
6000.0	821.6	16.8	18.5
7000.0	796.8	15.9	36.4
8000.0	767.7	11.5	26.1
9000.0	744.1	5.9	16.1
10000.0	710.5	11.0	2.0
11000.0	682.5	1.9	16.5
12000.0	659.8	6.5	8.4
13000.0	639.1	5.1	2.0
14000.0	614.3	0.7	14.0
15000.0	590.6	-1.8	2.0
16000.0	566.4	-4.3	5.4
17000.0	543.7	-5.6	1.8
18000.0	529.6	-8.3	10.5
19000.0	503.2	-13.9	2.0
20000.0	489.9	-11.1	9.0
21000.0	466.0	-14.1	11.7
22000.0	454.4	-16.2	4.0
23000.0	431.0	-17.6	20.3
24000.0	410.5	-20.8	44.8
25000.0	392.2	-22.4	54.1
26000.0	378.2	-27.8	39.2
27000.0	363.9	-28.4	48.6
28000.0	346.3	-30.3	63.7

RESULTS OF THE REPLICATION # 7
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HEIGHT	PRESSURE	TEMPERATURE	REL HUMD
0.0	1015.3	25.2	90.9
1000.0	984.1	17.2	93.9
2000.0	949.2	20.2	43.3
3000.0	921.8	18.8	36.9
4000.0	880.9	18.3	37.7
5000.0	848.4	15.7	37.7
6000.0	823.0	16.4	38.0
7000.0	797.6	9.1	28.7
8000.0	767.0	8.4	28.3
9000.0	742.9	11.0	34.5
10000.0	705.0	5.9	24.6
11000.0	681.0	6.2	23.2
12000.0	661.2	4.3	12.1
13000.0	638.7	-1.4	7.4
14000.0	608.5	0.5	9.8
15000.0	590.2	-7.4	16.9
16000.0	568.1	-7.7	13.9
17000.0	543.2	-7.6	7.1
18000.0	524.2	-8.5	22.4
19000.0	509.7	-9.0	11.9
20000.0	483.0	-14.6	10.3
21000.0	462.1	-16.8	6.8
22000.0	446.0	-15.8	6.5
23000.0	431.9	-16.7	0.9
24000.0	410.6	-25.6	45.6
25000.0	396.3	-19.5	64.2
26000.0	373.8	-30.3	42.3
27000.0	359.9	-31.3	61.9
28000.0	348.7	-30.9	60.9

RESULTS OF THE REPLICATION # 8
================================

HEIGHT	PRESSURE	TEMPERATURE	REL HUMD
0.0	1014.2	26.1	97.4
1000.0	978.5	22.6	93.8
2000.0	950.2	19.2	47.5
3000.0	914.2	19.9	44.2
4000.0	879.7	18.2	48.4
5000.0	851.4	15.3	29.0
6000.0	823.1	13.7	20.1
7000.0	795.9	12.6	33.9
8000.0	764.1	10.1	28.3
9000.0	740.2	10.9	18.6
10000.0	712.6	6.4	17.2
11000.0	683.5	5.6	12.2
12000.0	661.5	1.5	2.0
13000.0	636.7	1.5	32.4
14000.0	609.7	1.8	2.0
15000.0	589.8	-2.4	12.7
16000.0	562.7	-4.5	15.9
17000.0	546.0	-6.6	2.4
18000.0	524.8	-10.1	2.0
19000.0	504.4	-11.5	9.7
20000.0	483.8	-16.6	3.5
21000.0	461.7	-15.7	5.2
22000.0	447.1	-17.2	3.5
23000.0	431.4	-21.8	5.0
24000.0	410.4	-19.2	51.3
25000.0	389.7	-24.7	48.9
26000.0	382.7	-26.1	58.4
27000.0	358.4	-26.0	44.9
28000.0	348.7	-35.2	58.7

RESULTS OF THE REPLICATION # 9
================================

HEIGHT	PRESSURE	TEMPERATURE	REL HUMD
0.0	1015.3	22.2	93.3
1000.0	983.5	23.2	83.7
2000.0	949.4	23.6	29.3
3000.0	918.5	18.7	37.0
4000.0	878.1	17.8	46.7
5000.0	850.7	20.3	37.6
6000.0	819.9	14.6	24.1
7000.0	798.0	13.8	25.3
8000.0	768.1	8.9	39.7
9000.0	740.7	13.9	31.1
10000.0	708.3	8.1	12.2
11000.0	682.5	6.8	9.4
12000.0	658.8	6.0	17.7
13000.0	638.6	0.8	9.7
14000.0	609.1	0.7	5.8
15000.0	591.1	-0.6	2.0
16000.0	566.6	-6.1	18.2
17000.0	541.1	-7.3	10.3
18000.0	531.7	-7.4	12.0
19000.0	505.2	-10.6	4.1
20000.0	483.5	-12.0	16.3
21000.0	462.5	-18.1	16.8
22000.0	451.3	-12.7	22.5
23000.0	424.0	-16.6	17.2
24000.0	410.8	-21.3	37.4
25000.0	397.9	-24.8	69.8
26000.0	378.1	-29.2	39.0
27000.0	362.8	-30.5	46.5
28000.0	347.0	-32.4	64.1

RESULTS OF THE REPLICATION # 10
================================

HEIGHT	PRESSURE	TEMPERATURE	REL HUMD
0.0	1015.3	26.6	87.7
1000.0	984.6	18.0	98.5
2000.0	953.2	23.2	29.7
3000.0	915.9	20.2	28.4
4000.0	878.0	17.8	49.8
5000.0	854.8	14.3	34.5
6000.0	824.9	19.3	43.6
7000.0	796.0	15.5	24.7
8000.0	767.0	11.7	29.2
9000.0	741.0	9.1	21.0
10000.0	708.4	10.0	15.0
11000.0	685.3	7.4	18.0
12000.0	662.5	1.3	2.0
13000.0	635.3	2.5	4.8
14000.0	606.2	1.1	3.2
15000.0	589.4	-0.3	5.0
16000.0	568.3	-3.1	2.0
17000.0	544.3	-8.3	2.8
18000.0	525.7	-9.6	12.7
19000.0	504.0	-12.0	1.3
20000.0	484.4	-14.9	6.3
21000.0	471.1	-19.2	2.0
22000.0	444.3	-18.8	1.1
23000.0	424.8	-20.4	2.0
24000.0	411.3	-21.8	43.2
25000.0	394.4	-25.5	54.1
26000.0	380.1	-28.3	49.3
27000.0	360.1	-31.6	35.4
28000.0	344.0	-32.9	57.0

FILE: CAL1C

RESULTS OF THE REPLICATION # 1

HEIGHT	PRESSURE	TEMPERATURE	REL HUMD
0.0	1015.3	20.0	91.8
1000.0	984.1	15.1	98.0
2000.0	953.4	20.6	19.8
3000.0	916.4	16.5	31.6
4000.0	877.3	18.0	33.8
5000.0	851.5	22.4	30.6
6000.0	822.1	9.5	36.4
7000.0	790.7	19.2	30.6
8000.0	767.7	15.9	26.2
9000.0	740.3	5.7	25.1
10000.0	711.0	10.5	18.7
11000.0	684.1	6.5	19.8
12000.0	663.0	-2.2	2.0
13000.0	639.9	-1.4	13.1
14000.0	615.1	6.3	2.0
15000.0	592.1	2.3	18.5
16000.0	567.9	-0.5	9.0
17000.0	541.9	-3.0	10.6
18000.0	526.2	-12.2	2.0
19000.0	505.8	-13.9	3.0
20000.0	488.8	-15.7	27.2
21000.0	462.0	-15.0	2.0
22000.0	443.0	-17.6	6.8
23000.0	427.4	-21.9	2.0
24000.0	409.5	-23.0	30.9
25000.0	399.3	-22.5	47.5
26000.0	380.5	-23.9	50.1
27000.0	363.2	-25.4	57.5
28000.0	346.0	-28.9	41.4

RESULTS OF THE REPLICATION # 2

HEIGHT	PRESSURE	TEMPERATURE	REL HUMD
0.0	1015.3	24.3	99.0
1000.0	980.9	25.7	86.3
2000.0	946.4	18.4	54.8
3000.0	919.3	20.1	31.4
4000.0	884.1	26.1	37.5
5000.0	851.3	25.7	30.8
6000.0	819.6	21.5	23.1
7000.0	798.5	9.5	33.9
8000.0	768.5	12.5	34.2
9000.0	738.6	8.7	27.2
10000.0	709.8	12.2	7.3
11000.0	686.0	9.7	16.2
12000.0	655.8	9.9	2.0
13000.0	639.3	-6.1	2.0
14000.0	610.0	0.1	1.7
15000.0	591.7	-5.9	15.2
16000.0	562.9	-4.0	20.1
17000.0	543.1	-1.4	2.7
18000.0	526.7	-12.0	9.7
19000.0	507.6	-8.8	0.5
20000.0	491.1	-20.9	9.0
21000.0	464.3	-17.2	2.0
22000.0	444.6	-22.1	21.0
23000.0	429.7	-16.7	12.3
24000.0	413.7	-22.2	45.0
25000.0	395.7	-21.6	33.5
26000.0	379.9	-28.4	46.7
27000.0	367.8	-30.1	45.2
28000.0	347.2	-27.5	53.3

RESULTS OF THE REPLICATION # 3

HEIGHT	PRESSURE	TEMPERATURE	REL HUMD
0.0	1014.4	23.6	86.9
1000.0	985.3	24.2	87.5
2000.0	952.8	18.4	25.3
3000.0	915.3	20.3	50.8
4000.0	878.5	22.0	36.2
5000.0	852.6	18.3	39.4
6000.0	825.2	11.9	14.8
7000.0	793.3	17.7	35.5
8000.0	768.4	5.5	28.0
9000.0	739.4	16.1	31.1
10000.0	707.3	7.7	9.0
11000.0	684.0	7.2	17.5
12000.0	659.7	-1.3	25.9
13000.0	634.3	8.1	3.2
14000.0	613.4	-5.1	2.0
15000.0	592.0	-4.9	9.1
16000.0	566.9	-7.2	26.5
17000.0	540.6	-4.1	2.0
18000.0	531.4	-15.6	11.0
19000.0	505.2	-11.7	12.0
20000.0	484.5	-14.4	13.5
21000.0	468.1	-15.6	17.5
22000.0	445.7	-19.6	1.9
23000.0	430.2	-10.5	17.7
24000.0	406.9	-25.5	54.2
25000.0	397.4	-21.9	54.7
26000.0	379.5	-31.4	42.3
27000.0	362.4	-33.3	28.2
28000.0	350.0	-33.5	54.1

RESULTS OF THE REPLICATION # 4

HEIGHT	PRESSURE	TEMPERATURE	REL HUMD
0.0	1015.3	26.3	79.5
1000.0	978.2	21.5	93.3
2000.0	949.2	23.7	47.8
3000.0	915.4	23.0	28.2
4000.0	880.0	21.5	32.4
5000.0	854.9	19.0	23.7
6000.0	826.9	15.1	33.6
7000.0	792.3	8.6	45.4
8000.0	768.0	11.7	30.8
9000.0	737.5	5.8	25.7
10000.0	709.8	12.5	27.1
11000.0	686.0	11.5	3.4
12000.0	655.1	3.8	2.0
13000.0	640.2	1.6	12.3
14000.0	610.1	0.9	6.8
15000.0	586.3	-2.2	2.0
16000.0	562.6	-0.9	1.8
17000.0	543.9	-0.9	8.2
18000.0	523.3	-10.4	14.8
19000.0	503.8	-20.0	9.8
20000.0	485.0	-12.9	11.4
21000.0	465.7	-14.2	5.1
22000.0	451.5	-21.5	0.4
23000.0	429.3	-17.7	4.2
24000.0	411.4	-23.5	42.4
25000.0	397.3	-29.6	59.8
26000.0	379.6	-27.1	57.7
27000.0	361.2	-34.5	50.0
28000.0	347.4	-28.7	67.4

RESULTS OF THE REPLICATION # 5

HEIGHT	PRESSURE	TEMPERATURE	REL HUMD
0.0	1015.3	19.2	91.8
1000.0	981.7	27.9	77.4
2000.0	950.5	19.2	26.8
3000.0	910.7	15.8	41.2
4000.0	883.9	18.1	40.8
5000.0	855.4	16.6	37.0
6000.0	822.5	16.3	49.4
7000.0	793.1	13.5	32.5
8000.0	768.1	10.9	19.1
9000.0	742.2	2.8	20.4
10000.0	712.4	13.8	28.2
11000.0	682.7	8.2	11.4
12000.0	658.6	4.0	11.3
13000.0	635.5	-2.6	7.5
14000.0	611.0	2.6	16.7
15000.0	590.8	0.0	22.8
16000.0	562.6	-6.5	18.4
17000.0	542.3	-5.1	6.9
18000.0	524.2	3.3	2.0
19000.0	505.9	-7.4	7.1
20000.0	484.6	-12.5	7.2
21000.0	462.2	-12.7	19.6
22000.0	444.7	-21.9	15.2
23000.0	429.6	-14.5	12.5
24000.0	411.2	-17.9	43.3
25000.0	393.2	-25.5	57.2
26000.0	378.6	-24.5	51.8
27000.0	358.1	-19.6	46.2
28000.0	343.7	-27.9	63.2

RESULTS OF THE REPLICATION # 6

HEIGHT	PRESSURE	TEMPERATURE	REL HUMD
0.0	1014.8	22.5	93.3
1000.0	983.7	16.0	98.0
2000.0	949.0	16.7	15.7

3000.0	914.6	24.9	33.8
4000.0	880.6	26.6	48.7
5000.0	851.9	18.8	42.4
6000.0	821.6	17.4	18.5
7000.0	796.8	17.3	36.4
8000.0	767.7	11.0	26.1
9000.0	744.1	2.4	16.1
10000.0	710.5	13.7	2.0
11000.0	682.5	-1.8	16.5
12000.0	659.8	8.3	8.4
13000.0	639.1	7.8	2.0
14000.0	614.3	1.7	14.0
15000.0	590.6	-1.2	2.0
16000.0	566.4	-3.4	5.4
17000.0	543.7	-4.1	1.8
18000.0	529.6	-8.4	10.5
19000.0	503.2	-17.1	2.0
20000.0	489.9	-9.4	9.0
21000.0	466.0	-12.8	11.7
22000.0	454.4	-15.2	4.0
23000.0	431.0	-16.3	20.3
24000.0	410.5	-19.8	44.8
25000.0	392.2	-20.5	54.1
26000.0	378.2	-28.4	39.2
27000.0	363.9	-27.1	48.6
28000.0	346.3	-28.7	63.7

RESULTS OF THE REPLICATION # 7
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HEIGHT	PRESSURE	TEMPERATURE	REL HUMD
0.0	1015.3	27.8	90.9
1000.0	984.1	12.5	93.9
2000.0	949.2	18.5	43.3
3000.0	921.8	17.2	36.9
4000.0	880.9	17.5	37.7
5000.0	848.4	14.0	37.7
6000.0	823.0	16.6	38.0
7000.0	797.6	3.8	28.7
8000.0	767.0	4.8	28.3
9000.0	742.9	12.4	34.5
10000.0	705.0	3.5	24.6
11000.0	681.0	6.7	23.2
12000.0	661.2	3.8	12.1
13000.0	638.7	-5.1	7.4
14000.0	608.5	1.3	9.8
15000.0	590.2	-12.2	16.9
16000.0	568.1	-10.1	13.9
17000.0	543.2	-8.2	7.1
18000.0	524.2	-8.9	22.4
19000.0	509.7	-7.2	11.9
20000.0	483.0	-16.4	10.3
21000.0	462.1	-18.2	6.8
22000.0	446.0	-14.4	6.5
23000.0	431.9	-14.4	0.9
24000.0	410.6	-29.5	45.6
25000.0	396.3	-14.7	64.2
26000.0	373.8	-33.5	42.3
27000.0	359.9	-32.8	61.9
28000.0	348.7	-29.7	60.9

RESULTS OF THE REPLICATION # 8
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HEIGHT	PRESSURE	TEMPERATURE	REL HUMD
0.0	1014.2	29.6	97.4
1000.0	978.5	23.3	93.8
2000.0	950.2	16.6	47.5
3000.0	914.2	19.6	44.2
4000.0	879.7	17.3	48.4
5000.0	851.4	13.3	29.0
6000.0	823.1	11.3	20.1
7000.0	795.9	10.8	33.9
8000.0	764.1	8.0	28.3
9000.0	740.2	12.4	18.6
10000.0	712.6	4.5	17.2
11000.0	683.5	5.6	12.2
12000.0	661.5	-1.7	2.0
13000.0	636.7	0.5	32.4
14000.0	609.7	4.1	2.0
15000.0	589.8	-2.2	12.7
16000.0	562.7	-3.9	15.9
17000.0	546.0	-6.2	2.4
18000.0	524.8	-12.0	2.0
19000.0	504.4	-12.2	9.7
20000.0	483.8	-20.5	3.5
21000.0	461.7	-16.0	5.2
22000.0	447.1	-17.1	3.5
23000.0	431.4	-24.6	5.0
24000.0	410.4	-16.6	51.3
25000.0	389.7	-25.0	48.9
26000.0	382.7	-25.0	58.4
27000.0	358.4	-22.3	44.9
28000.0	348.7	-38.5	58.7

RESULTS OF THE REPLICATION # 9
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HEIGHT	PRESSURE	TEMPERATURE	REL HUMD
0.0	1015.3	21.7	93.3
1000.0	983.5	24.6	83.7
2000.0	949.4	25.5	29.3
3000.0	918.5	17.1	37.0
4000.0	878.1	16.6	46.7
5000.0	850.7	23.2	37.6
6000.0	819.9	13.1	24.1
7000.0	798.0	13.2	25.3
8000.0	768.1	5.7	39.7
9000.0	740.7	18.3	31.1
10000.0	708.3	8.0	12.2
11000.0	682.5	7.8	9.4
12000.0	658.8	7.3	17.7
13000.0	638.6	-0.8	9.7
14000.0	609.1	1.8	5.8
15000.0	591.1	1.3	2.0
16000.0	566.6	-6.9	18.2
17000.0	541.1	-7.6	10.3
18000.0	531.7	-6.7	12.0
19000.0	505.2	-10.4	4.1
20000.0	483.5	-11.1	16.3
21000.0	462.5	-20.8	16.8
22000.0	451.3	-8.1	22.5
23000.0	424.0	-14.3	17.2
24000.0	410.8	-20.9	37.4
25000.0	397.9	-25.4	69.8
26000.0	378.1	-31.3	39.0
27000.0	362.8	-31.3	46.5
28000.0	347.0	-32.9	64.1

RESULTS OF THE REPLICATION # 10
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HEIGHT	PRESSURE	TEMPERATURE	REL HUMD
0.0	1015.3	30.7	87.7
1000.0	984.6	14.1	98.5
2000.0	953.2	24.7	29.7
3000.0	915.9	20.2	28.4
4000.0	878.0	16.4	49.8
5000.0	854.8	11.3	34.5
6000.0	824.9	22.4	43.6
7000.0	796.0	16.6	24.7
8000.0	767.0	11.4	29.2
9000.0	741.0	8.7	21.0
10000.0	708.4	11.7	15.0
11000.0	685.3	9.0	18.0
12000.0	662.5	-2.2	2.0
13000.0	635.3	2.5	4.8
14000.0	606.2	2.7	3.2
15000.0	589.4	2.0	5.0
16000.0	568.3	-1.1	2.0
17000.0	544.3	-9.6	2.8
18000.0	525.7	-11.0	12.7
19000.0	504.0	-13.2	1.3
20000.0	484.4	-17.1	6.3
21000.0	471.1	-23.0	2.0
22000.0	444.3	-20.5	1.1
23000.0	424.8	-21.8	2.0
24000.0	411.3	-21.7	43.2
25000.0	394.4	-26.8	54.1
26000.0	380.1	-29.5	49.3
27000.0	360.1	-33.4	35.4
28000.0	344.0	-33.7	57.0

FILE: CAL1D

RESULTS OF THE REPLICATION # 1

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HEIGHT	PRESSURE	TEMPERATURE	REL HUMD
0.0	1015.3	22.0	91.8
1000.0	983.1	20.2	98.0
2000.0	952.1	21.5	19.8
3000.0	916.5	19.3	31.6
4000.0	878.7	18.8	33.8
5000.0	851.3	18.6	30.6
6000.0	822.9	14.5	36.4
7000.0	792.5	15.6	30.6
8000.0	767.3	13.0	26.2
9000.0	739.9	8.5	25.1
10000.0	710.5	8.9	18.7
11000.0	684.0	5.9	19.8
12000.0	661.3	3.0	2.0
13000.0	638.5	1.5	13.1
14000.0	613.1	1.3	2.0
15000.0	591.4	-1.3	18.5
16000.0	566.7	-4.0	9.0
17000.0	543.0	-6.0	10.6
18000.0	525.7	-9.2	2.0
19000.0	505.6	-11.6	3.0
20000.0	487.8	-13.5	27.2
21000.0	462.9	-15.3	2.0
22000.0	444.5	-17.3	6.8
23000.0	428.0	-19.7	2.0
24000.0	410.1	-22.1	30.9
25000.0	397.8	-23.8	47.5
26000.0	379.6	-26.3	50.1
27000.0	363.0	-28.6	57.5
28000.0	346.6	-31.2	41.4

RESULTS OF THE REPLICATION # 2

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HEIGHT	PRESSURE	TEMPERATURE	REL HUMD
0.0	1015.3	23.0	99.0
1000.0	981.2	22.9	86.3
2000.0	947.9	20.9	54.8
3000.0	918.2	20.2	31.4
4000.0	882.8	20.8	37.5
5000.0	851.2	19.4	30.8
6000.0	821.4	17.5	23.1
7000.0	797.2	13.2	33.9
8000.0	767.8	12.2	34.2
9000.0	738.9	9.3	27.2
10000.0	709.8	9.3	7.3
11000.0	685.2	6.7	16.2
12000.0	657.0	6.0	2.0
13000.0	638.1	0.3	2.0
14000.0	610.0	-0.3	1.7
15000.0	591.2	-3.4	15.2
16000.0	563.8	-4.9	20.1
17000.0	543.8	-5.6	2.7
18000.0	526.0	-9.1	9.7
19000.0	506.7	-10.3	0.5
20000.0	489.2	-14.8	9.0
21000.0	464.3	-15.9	2.0
22000.0	445.4	-18.4	21.0
23000.0	429.3	-18.4	12.3
24000.0	412.7	-21.9	45.0
25000.0	395.6	-23.6	33.5
26000.0	379.3	-27.4	46.7
27000.0	365.8	-29.8	45.2
28000.0	347.3	-30.9	53.3

RESULTS OF THE REPLICATION # 3

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HEIGHT	PRESSURE	TEMPERATURE	REL HUMD
0.0	1015.2	22.8	86.9
1000.0	983.8	22.5	87.5
2000.0	951.8	21.0	25.3
3000.0	915.8	20.3	50.8
4000.0	879.4	19.8	36.2
5000.0	852.0	17.5	39.4
6000.0	824.7	15.1	14.8
7000.0	794.1	15.2	35.5
8000.0	767.7	10.5	28.0
9000.0	739.4	11.1	31.1
10000.0	708.3	8.2	9.0
11000.0	684.0	6.1	17.5
12000.0	659.3	3.2	25.9
13000.0	635.2	3.8	3.2
14000.0	612.1	-1.6	2.0
15000.0	591.4	-3.1	9.1
16000.0	566.2	-5.7	26.5
17000.0	542.2	-6.3	2.0
18000.0	528.9	-10.1	11.0
19000.0	505.3	-11.0	12.0
20000.0	485.2	-13.2	13.5
21000.0	466.5	-15.5	17.5
22000.0	446.1	-17.8	1.9
23000.0	429.6	-16.9	17.7
24000.0	408.6	-22.7	54.2
25000.0	396.6	-23.7	54.7
26000.0	379.0	-28.2	42.3
27000.0	362.5	-30.6	28.2
28000.0	349.0	-32.4	54.1

RESULTS OF THE REPLICATION # 4

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HEIGHT	PRESSURE	TEMPERATURE	REL HUMD
0.0	1015.3	23.5	79.5
1000.0	979.5	21.8	93.3
2000.0	949.6	22.3	47.8
3000.0	915.8	21.0	28.2
4000.0	880.3	19.7	32.4
5000.0	853.4	17.7	23.7
6000.0	825.8	15.9	33.6
7000.0	793.5	12.9	45.4
8000.0	767.5	12.0	30.8
9000.0	738.2	8.6	25.7
10000.0	709.8	9.4	27.1
11000.0	685.2	7.1	3.4
12000.0	656.6	4.5	2.0
13000.0	638.7	2.2	12.3
14000.0	610.1	-0.1	6.8
15000.0	587.9	-2.4	2.0
16000.0	563.6	-4.1	1.8
17000.0	544.2	-5.5	8.2
18000.0	524.0	-8.8	14.8
19000.0	504.5	-13.1	9.8
20000.0	485.5	-12.8	11.4
21000.0	465.1	-15.1	5.1
22000.0	449.6	-18.3	0.4
23000.0	429.1	-18.7	4.2
24000.0	411.3	-22.2	42.4
25000.0	396.6	-25.6	59.8
26000.0	379.1	-27.1	57.7
27000.0	361.8	-30.9	50.0
28000.0	347.5	-31.2	67.4

RESULTS OF THE REPLICATION # 5

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HEIGHT	PRESSURE	TEMPERATURE	REL HUMD
0.0	1015.3	21.7	91.8
1000.0	981.6	23.4	77.4
2000.0	950.4	21.1	26.8
3000.0	913.0	19.2	41.2
4000.0	882.6	18.9	40.8
5000.0	853.7	17.1	37.0
6000.0	823.1	16.2	49.4
7000.0	794.0	14.2	32.5
8000.0	767.5	11.8	19.1
9000.0	741.0	7.8	20.4
10000.0	711.4	9.7	28.2
11000.0	683.2	6.3	11.4
12000.0	658.7	4.5	11.3
13000.0	635.9	1.2	7.5
14000.0	610.6	0.3	16.7
15000.0	590.7	-1.9	22.8
16000.0	563.5	-5.5	18.4
17000.0	543.3	-6.5	6.9
18000.0	524.5	-5.3	2.0
19000.0	505.7	-9.9	7.1
20000.0	485.3	-12.7	7.2
21000.0	463.0	-14.7	19.6
22000.0	445.5	-18.4	15.2
23000.0	429.3	-17.9	12.5
24000.0	411.1	-20.8	43.3
25000.0	394.1	-24.6	57.2
26000.0	378.5	-26.4	51.8
27000.0	360.0	-27.2	46.2
28000.0	345.3	-31.0	63.2

RESULTS OF THE REPLICATION # 6

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HEIGHT	PRESSURE	TEMPERATURE	REL HUMD
0.0	1015.4	22.6	93.3
1000.0	982.9	20.4	98.0
2000.0	949.5	20.5	15.7

3000.0	915.4	21.5	33.8
4000.0	880.7	21.0	48.7
5000.0	851.6	17.7	42.4
6000.0	822.6	16.5	18.5
7000.0	796.2	15.1	36.4
8000.0	767.3	11.8	26.1
9000.0	742.2	7.7	16.1
10000.0	710.2	9.7	2.0
11000.0	683.1	3.8	16.5
12000.0	659.4	5.6	8.4
13000.0	638.0	3.7	2.0
14000.0	612.6	0.1	14.0
15000.0	590.5	-2.2	2.0
16000.0	565.9	-4.8	5.4
17000.0	544.1	-6.3	1.8
18000.0	527.8	-8.3	10.5
19000.0	504.1	-12.4	2.0
20000.0	488.4	-12.0	9.0
21000.0	465.3	-14.8	11.7
22000.0	451.3	-16.7	4.0
23000.0	430.1	-18.3	20.3
24000.0	410.7	-21.3	44.8
25000.0	393.5	-23.3	54.1
26000.0	378.3	-27.4	39.2
27000.0	363.4	-29.0	48.6
28000.0	346.8	-31.2	63.7

RESULTS OF THE REPLICATION # 7
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HEIGHT	PRESSURE	TEMPERATURE	REL HUMD
0.0	1015.3	23.9	90.9
1000.0	983.1	19.5	93.9
2000.0	949.6	21.0	43.3
3000.0	919.7	19.5	36.9
4000.0	880.8	18.7	37.7
5000.0	849.5	16.5	37.7
6000.0	823.4	16.3	38.0
7000.0	796.7	11.8	28.7
8000.0	766.9	10.3	28.3
9000.0	741.5	10.2	34.5
10000.0	706.9	7.1	24.6
11000.0	682.1	5.9	23.2
12000.0	660.2	4.5	12.1
13000.0	637.8	0.5	7.4
14000.0	609.1	0.0	9.8
15000.0	590.3	-4.9	16.9
16000.0	566.9	-6.4	13.9
17000.0	543.8	-7.3	7.1
18000.0	524.5	-8.4	22.4
19000.0	508.0	-9.9	11.9
20000.0	484.3	-13.7	10.3
21000.0	462.9	-16.1	6.8
22000.0	446.3	-16.5	6.5
23000.0	430.7	-17.8	0.9
24000.0	410.8	-23.7	45.6
25000.0	396.0	-21.9	64.2
26000.0	375.6	-28.7	42.3
27000.0	361.0	-30.5	61.9
28000.0	348.3	-31.4	60.9

RESULTS OF THE REPLICATION # 8
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HEIGHT	PRESSURE	TEMPERATURE	REL HUMD
0.0	1015.0	24.4	97.4
1000.0	979.7	22.3	93.8
2000.0	950.2	20.5	47.5
3000.0	915.1	20.1	44.2
4000.0	880.1	18.6	48.4
5000.0	851.3	16.3	29.0
6000.0	823.4	15.0	20.1
7000.0	795.7	13.5	33.9
8000.0	765.1	11.1	28.3
9000.0	739.9	10.2	18.6
10000.0	711.5	7.3	17.2
11000.0	683.6	5.7	12.2
12000.0	660.4	3.1	2.0
13000.0	636.6	1.9	32.4
14000.0	609.8	0.7	2.0
15000.0	590.0	-2.4	12.7
16000.0	563.6	-4.9	15.9
17000.0	545.5	-6.8	2.4
18000.0	524.9	-9.1	2.0
19000.0	504.8	-11.1	9.7
20000.0	484.8	-14.7	3.5
21000.0	462.7	-15.6	5.2
22000.0	446.9	-17.2	3.5
23000.0	430.3	-20.4	5.0
24000.0	410.7	-20.5	51.3
25000.0	392.0	-24.5	48.9
26000.0	381.0	-26.6	58.4
27000.0	360.1	-27.8	44.9
28000.0	348.3	-33.6	58.7

RESULTS OF THE REPLICATION # 9
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HEIGHT	PRESSURE	TEMPERATURE	REL HUMD
0.0	1015.3	22.4	93.3
1000.0	982.7	22.6	83.7
2000.0	949.7	22.7	29.3
3000.0	917.7	19.5	37.0
4000.0	879.1	18.5	46.7
5000.0	850.9	18.8	37.6
6000.0	821.5	15.4	24.1
7000.0	796.9	14.1	25.3
8000.0	767.5	10.5	39.7
9000.0	740.1	11.7	31.1
10000.0	708.9	8.2	12.2
11000.0	683.0	6.2	9.4
12000.0	658.8	5.3	17.7
13000.0	637.7	1.6	9.7
14000.0	609.5	0.2	5.8
15000.0	590.8	-1.5	2.0
16000.0	565.9	-5.6	18.2
17000.0	542.6	-7.1	10.3
18000.0	529.0	-7.8	12.0
19000.0	505.3	-10.7	4.1
20000.0	484.6	-12.4	16.3
21000.0	463.2	-16.8	16.8
22000.0	449.4	-14.9	22.5
23000.0	425.9	-17.8	17.2
24000.0	410.9	-21.6	37.4
25000.0	396.9	-24.6	69.8
26000.0	378.1	-28.2	39.0
27000.0	362.8	-30.1	46.5
28000.0	347.2	-32.2	64.1

RESULTS OF THE REPLICATION # 10
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HEIGHT	PRESSURE	TEMPERATURE	REL HUMD
0.0	1015.3	24.6	87.7
1000.0	983.4	19.9	98.5
2000.0	952.0	22.5	29.7
3000.0	916.1	20.3	28.4
4000.0	879.1	18.4	49.8
5000.0	853.3	15.8	34.5
6000.0	824.5	17.8	43.6
7000.0	795.7	15.0	24.7
8000.0	766.9	11.9	29.2
9000.0	740.3	9.3	21.0
10000.0	709.0	9.2	15.0
11000.0	684.7	6.5	18.0
12000.0	661.0	3.0	2.0
13000.0	635.7	2.4	4.8
14000.0	607.8	0.4	3.2
15000.0	589.8	-1.4	5.0
16000.0	567.0	-4.2	2.0
17000.0	544.4	-7.7	2.8
18000.0	525.4	-8.9	12.7
19000.0	504.6	-11.4	1.3
20000.0	485.1	-13.9	6.3
21000.0	468.4	-17.3	2.0
22000.0	445.2	-18.0	1.1
23000.0	426.4	-19.7	2.0
24000.0	411.2	-21.8	43.2
25000.0	394.8	-24.9	54.1
26000.0	379.4	-27.7	49.3
27000.0	361.1	-30.6	35.4
28000.0	345.4	-32.4	57.0

FILE: CAL1E

RESULTS OF THE REPLICATION # 1

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HEIGHT	PRESSURE	TEMPERATURE	REL HUMD
0.0	1015.3	21.3	91.8
1000.0	983.1	18.5	98.0
2000.0	952.1	21.2	19.8
3000.0	916.5	18.4	31.6
4000.0	878.7	18.6	33.8
5000.0	851.3	19.8	30.6
6000.0	822.9	12.8	36.4
7000.0	792.5	16.8	30.6
8000.0	767.3	14.0	26.2
9000.0	739.9	7.6	25.1
10000.0	710.5	9.4	18.7
11000.0	684.0	6.1	19.8
12000.0	661.3	1.3	2.0
13000.0	638.5	0.5	13.1
14000.0	613.1	2.9	2.0
15000.0	591.4	-0.1	18.5
16000.0	566.7	-2.9	9.0
17000.0	543.0	-5.0	10.6
18000.0	525.7	-10.2	2.0
19000.0	505.6	-12.4	3.0
20000.0	487.8	-14.3	27.2
21000.0	462.9	-15.2	2.0
22000.0	444.5	-17.4	6.8
23000.0	428.0	-20.5	2.0
24000.0	410.1	-22.4	30.9
25000.0	397.8	-23.4	47.5
26000.0	379.6	-25.5	50.1
27000.0	363.0	-27.5	57.5
28000.0	346.6	-30.5	41.4

RESULTS OF THE REPLICATION # 2

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HEIGHT	PRESSURE	TEMPERATURE	REL HUMO
0.0	1015.3	23.4	99.0
1000.0	981.2	23.8	86.3
2000.0	947.9	20.1	54.8
3000.0	918.2	20.2	31.4
4000.0	882.8	22.6	37.5
5000.0	851.2	21.5	30.8
6000.0	821.4	18.9	23.1
7000.0	797.2	11.9	33.9
8000.0	767.8	12.3	34.2
9000.0	738.9	9.1	27.2
10000.0	709.8	10.2	7.3
11000.0	685.2	7.7	16.2
12000.0	657.0	7.3	2.0
13000.0	638.1	-1.9	2.0
14000.0	610.0	-0.2	1.7
15000.0	591.2	-4.2	15.2
16000.0	563.8	-4.6	20.1
17000.0	543.8	-4.2	2.7
18000.0	526.0	-10.1	9.7
19000.0	506.7	-9.8	0.5
20000.0	489.2	-16.8	9.0
21000.0	464.3	-16.3	2.0
22000.0	445.4	-19.6	21.0
23000.0	429.3	-17.9	12.3
24000.0	412.7	-22.0	45.0
25000.0	395.6	-23.0	33.5
26000.0	379.3	-27.8	46.7
27000.0	365.8	-29.9	45.2
28000.0	347.3	-29.7	53.3

RESULTS OF THE REPLICATION # 3

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HEIGHT	PRESSURE	TEMPERATURE	REL HUMO
0.0	1015.2	23.1	86.9
1000.0	983.8	23.0	87.5
2000.0	951.8	20.1	25.3
3000.0	915.8	20.3	50.8
4000.0	879.4	20.6	36.2
5000.0	852.0	17.8	39.4
6000.0	824.7	14.0	14.8
7000.0	794.1	16.1	35.5
8000.0	767.7	8.8	28.0
9000.0	739.4	12.8	31.1
10000.0	708.3	8.0	9.0
11000.0	684.0	6.5	17.5
12000.0	659.3	1.7	25.9
13000.0	635.2	5.3	3.2
14000.0	612.1	-2.8	2.0
15000.0	591.4	-3.7	9.1
16000.0	566.2	-6.2	26.5
17000.0	542.2	-5.6	2.0
18000.0	528.9	-11.9	11.0
19000.0	505.3	-11.2	12.0
20000.0	485.2	-13.6	13.5
21000.0	466.5	-15.5	17.5
22000.0	446.1	-18.4	1.9
23000.0	429.6	-14.7	17.7
24000.0	408.6	-23.7	54.2
25000.0	396.6	-23.1	54.7
26000.0	379.0	-29.3	42.3
27000.0	362.5	-31.5	28.2
28000.0	349.0	-32.8	54.1

RESULTS OF THE REPLICATION # 4

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HEIGHT	PRESSURE	TEMPERATURE	REL HUMO
0.0	1015.3	24.4	79.5
1000.0	979.5	21.7	93.3
2000.0	949.6	22.8	47.8
3000.0	915.8	21.7	28.2
4000.0	880.3	20.3	32.4
5000.0	853.4	18.2	23.7
6000.0	825.8	15.6	33.6
7000.0	793.5	11.5	45.4
8000.0	767.5	11.9	30.8
9000.0	738.2	7.6	25.7
10000.0	709.8	10.4	27.1
11000.0	685.2	8.6	3.4
12000.0	656.6	4.3	2.0
13000.0	638.7	2.0	12.3
14000.0	610.1	0.3	6.8
15000.0	587.9	-2.4	2.0
16000.0	563.6	-3.1	1.8
17000.0	544.2	-3.9	8.2
18000.0	524.0	-9.3	14.8
19000.0	504.5	-15.4	9.8
20000.0	485.5	-12.8	11.4
21000.0	465.1	-14.8	5.1
22000.0	449.6	-19.4	0.4
23000.0	429.1	-18.3	4.2
24000.0	411.3	-22.7	42.4
25000.0	396.6	-26.9	59.8
26000.0	379.1	-27.1	57.7
27000.0	361.8	-32.1	50.0
28000.0	347.5	-30.3	67.4

RESULTS OF THE REPLICATION # 5

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HEIGHT	PRESSURE	TEMPERATURE	REL HUMO
0.0	1015.3	20.9	91.8
1000.0	981.6	24.9	77.4
2000.0	950.4	20.5	26.8
3000.0	913.0	18.1	41.2
4000.0	882.6	18.6	40.8
5000.0	853.7	16.9	37.0
6000.0	823.1	16.3	49.4
7000.0	794.0	14.0	32.5
8000.0	767.5	11.5	19.1
9000.0	741.0	6.1	20.4
10000.0	711.4	11.1	28.2
11000.0	683.2	6.9	11.4
12000.0	658.7	4.4	11.3
13000.0	635.9	-0.1	7.5
14000.0	610.6	1.1	16.7
15000.0	590.7	-1.2	22.8
16000.0	563.5	-5.9	18.4
17000.0	543.3	-6.1	6.9
18000.0	524.5	-2.4	2.0
19000.0	505.7	-9.1	7.1
20000.0	485.3	-12.6	7.2
21000.0	463.0	-14.1	19.6
22000.0	445.5	-19.5	15.2
23000.0	429.3	-16.7	12.5
24000.0	411.1	-19.8	43.3
25000.0	394.1	-24.9	57.2
26000.0	378.5	-25.8	51.8
27000.0	360.0	-24.6	46.2
28000.0	345.3	-29.9	63.2

RESULTS OF THE REPLICATION # 6

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HEIGHT	PRESSURE	TEMPERATURE	REL HUMD
0.0	1015.4	22.5	93.3
1000.0	982.9	19.0	98.0
2000.0	949.5	19.3	15.7

3000.0	915.4	22.6	33.8
4000.0	880.7	22.8	48.7
5000.0	851.6	18.0	42.4
6000.0	822.6	16.8	18.5
7000.0	796.2	15.9	36.4
8000.0	767.3	11.5	26.1
9000.0	742.2	5.9	16.1
10000.0	710.2	11.0	2.0
11000.0	683.1	1.9	16.5
12000.0	659.4	6.5	8.4
13000.0	638.0	5.1	2.0
14000.0	612.6	0.7	14.0
15000.0	590.5	-1.8	2.0
16000.0	565.9	-4.3	5.4
17000.0	544.1	-5.6	1.8
18000.0	527.8	-8.3	10.5
19000.0	504.1	-13.9	2.0
20000.0	488.4	-11.1	9.0
21000.0	465.3	-14.1	11.7
22000.0	451.3	-16.2	4.0
23000.0	430.1	-17.6	20.3
24000.0	410.7	-20.8	44.8
25000.0	393.5	-22.4	54.1
26000.0	378.3	-27.8	39.2
27000.0	363.4	-28.4	48.6
28000.0	346.8	-30.3	63.7

RESULTS OF THE REPLICATION # 7
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HEIGHT	PRESSURE	TEMPERATURE	REL HUMD
0.0	1015.3	25.2	90.9
1000.0	983.1	17.2	93.9
2000.0	949.6	20.2	43.3
3000.0	919.7	18.8	36.9
4000.0	880.8	18.3	37.7
5000.0	849.5	15.7	37.7
6000.0	823.4	16.4	38.0
7000.0	796.7	9.1	28.7
8000.0	766.9	8.4	28.3
9000.0	741.5	11.0	34.5
10000.0	706.9	5.9	24.6
11000.0	682.1	6.2	23.2
12000.0	660.2	4.3	12.1
13000.0	637.8	-1.4	7.4
14000.0	609.1	0.5	9.8
15000.0	590.3	-7.4	16.9
16000.0	566.9	-7.7	13.9
17000.0	543.8	-7.6	7.1
18000.0	524.5	-8.5	22.4
19000.0	508.0	-9.0	11.9
20000.0	484.3	-14.6	10.3
21000.0	462.9	-16.8	6.8
22000.0	446.3	-15.8	6.5
23000.0	430.7	-16.7	0.9
24000.0	410.8	-25.6	45.6
25000.0	396.0	-19.5	64.2
26000.0	375.6	-30.3	42.3
27000.0	361.0	-31.3	61.9
28000.0	348.3	-30.9	60.9

RESULTS OF THE REPLICATION # 8
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HEIGHT	PRESSURE	TEMPERATURE	REL HUMD
0.0	1015.0	26.1	97.4
1000.0	979.7	22.6	93.8
2000.0	950.2	19.2	47.5
3000.0	915.1	19.9	44.2
4000.0	880.1	18.2	48.4
5000.0	851.3	15.3	29.0
6000.0	823.4	13.7	20.1
7000.0	795.7	12.6	33.9
8000.0	765.1	10.1	28.3
9000.0	739.9	10.9	18.6
10000.0	711.5	6.4	17.2
11000.0	683.6	5.6	12.2
12000.0	660.4	1.5	2.0
13000.0	636.6	1.5	32.4
14000.0	609.8	1.8	2.0
15000.0	590.0	-2.4	12.7
16000.0	563.6	-4.5	15.9
17000.0	545.5	-6.6	2.4
18000.0	524.9	-10.1	2.0
19000.0	504.8	-11.5	9.7
20000.0	484.8	-16.6	3.5
21000.0	462.7	-15.7	5.2
22000.0	446.9	-17.2	3.5
23000.0	430.3	-21.8	5.0
24000.0	410.7	-19.2	51.3
25000.0	392.0	-24.7	48.9
26000.0	381.0	-26.1	58.4
27000.0	360.1	-26.0	44.9
28000.0	348.3	-35.2	58.7

RESULTS OF THE REPLICATION # 9
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HEIGHT	PRESSURE	TEMPERATURE	REL HUMD
0.0	1015.3	22.2	93.3
1000.0	982.7	23.2	83.7
2000.0	949.7	23.6	29.3
3000.0	917.7	18.7	37.0
4000.0	879.1	17.8	46.7
5000.0	850.9	20.3	37.6
6000.0	821.5	14.6	24.1
7000.0	796.9	13.8	25.3
8000.0	767.5	8.9	39.7
9000.0	740.1	13.9	31.1
10000.0	708.9	8.1	12.2
11000.0	683.0	6.8	9.4
12000.0	658.8	6.0	17.7
13000.0	637.7	0.8	9.7
14000.0	609.5	0.7	5.8
15000.0	590.8	-0.6	2.0
16000.0	565.9	-6.1	18.2
17000.0	542.6	-7.3	10.3
18000.0	529.0	-7.4	12.0
19000.0	505.3	-10.6	4.1
20000.0	484.6	-12.0	16.3
21000.0	463.2	-18.1	16.8
22000.0	449.4	-12.7	22.5
23000.0	425.9	-16.6	17.2
24000.0	410.9	-21.3	37.4
25000.0	396.9	-24.8	69.8
26000.0	378.1	-29.2	39.0
27000.0	362.8	-30.5	46.5
28000.0	347.2	-32.4	64.1

RESULTS OF THE REPLICATION # 10
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HEIGHT	PRESSURE	TEMPERATURE	REL HUMD
0.0	1015.3	26.6	87.7
1000.0	983.4	18.0	98.5
2000.0	952.0	23.2	29.7
3000.0	916.1	20.2	28.4
4000.0	879.1	17.8	49.8
5000.0	853.3	14.3	34.5
6000.0	824.5	19.3	43.6
7000.0	795.7	15.5	24.7
8000.0	766.9	11.7	29.2
9000.0	740.3	9.1	21.0
10000.0	709.0	10.0	15.0
11000.0	684.7	7.4	18.0
12000.0	661.0	1.3	2.0
13000.0	635.7	2.5	4.8
14000.0	607.8	1.1	3.2
15000.0	589.8	-0.3	5.0
16000.0	567.0	-3.1	2.0
17000.0	544.4	-8.3	2.8
18000.0	525.4	-9.6	12.7
19000.0	504.6	-12.0	1.3
20000.0	485.1	-14.9	6.3
21000.0	468.4	-19.2	2.0
22000.0	445.2	-18.8	1.1
23000.0	426.4	-20.4	2.0
24000.0	411.2	-21.8	43.2
25000.0	394.8	-25.5	54.1
26000.0	379.4	-28.3	49.3
27000.0	361.1	-31.6	35.4
28000.0	345.4	-32.9	57.0

FILE: CALIF

RESULTS OF THE REPLICATION # 1

HEIGHT	PRESSURE	TEMPERATURE	REL HUMD
0.0	1015.3	20.0	91.8
1000.0	983.1	15.1	98.0
2000.0	952.1	20.6	19.8
3000.0	916.5	16.5	31.6
4000.0	878.7	18.0	33.8
5000.0	851.3	22.4	30.6
6000.0	822.9	9.5	36.4
7000.0	792.5	19.2	30.6
8000.0	767.3	15.9	26.2
9000.0	739.9	5.7	25.1
10000.0	710.5	10.5	18.7
11000.0	684.0	6.5	19.8
12000.0	661.3	-2.2	2.0
13000.0	638.5	-1.4	13.1
14000.0	613.1	6.3	2.0
15000.0	591.4	2.3	18.5
16000.0	566.7	-0.5	9.0
17000.0	543.0	-3.0	10.6
18000.0	525.7	-12.2	2.0
19000.0	505.6	-13.9	3.0
20000.0	487.8	-15.7	27.2
21000.0	462.9	-15.0	2.0
22000.0	444.5	-17.6	6.8
23000.0	428.0	-21.9	2.0
24000.0	410.1	-23.0	30.9
25000.0	397.8	-22.5	47.5
26000.0	379.6	-23.9	50.1
27000.0	363.0	-25.4	57.5
28000.0	346.6	-28.9	41.4

RESULTS OF THE REPLICATION # 2

HEIGHT	PRESSURE	TEMPERATURE	REL HUMD
0.0	1015.3	24.3	99.0
1000.0	981.2	25.7	86.3
2000.0	947.9	18.4	54.8
3000.0	918.2	20.1	31.4
4000.0	882.8	26.1	37.5
5000.0	851.2	25.7	30.8
6000.0	821.4	21.5	23.1
7000.0	797.2	9.5	33.9
8000.0	767.8	12.5	34.2
9000.0	738.9	8.7	27.2
10000.0	709.8	12.2	7.3
11000.0	685.2	9.7	16.2
12000.0	657.0	9.9	2.0
13000.0	638.1	-6.1	2.0
14000.0	610.0	0.1	1.7
15000.0	591.2	-5.9	15.2
16000.0	563.8	-4.0	20.1
17000.0	543.8	-1.4	2.7
18000.0	526.0	-12.0	9.7
19000.0	506.7	-8.8	0.5
20000.0	489.2	-20.9	9.0
21000.0	464.3	-17.2	2.0
22000.0	445.4	-22.1	21.0
23000.0	429.3	-16.7	12.3
24000.0	412.7	-22.2	45.0
25000.0	395.6	-21.6	33.5
26000.0	379.3	-28.4	46.7
27000.0	365.8	-30.1	45.2
28000.0	347.3	-27.5	53.3

RESULTS OF THE REPLICATION # 3

HEIGHT	PRESSURE	TEMPERATURE	REL HUMD
0.0	1015.2	23.6	86.9
1000.0	983.8	24.2	87.5
2000.0	951.8	18.4	25.3
3000.0	915.8	20.3	50.8
4000.0	879.4	22.0	36.2
5000.0	852.0	18.3	39.4
6000.0	824.7	11.9	14.8
7000.0	794.1	17.7	35.5
8000.0	767.7	5.5	28.0
9000.0	739.4	16.1	31.1
10000.0	708.3	7.7	9.0
11000.0	684.0	7.2	17.5
12000.0	659.3	-1.3	25.9
13000.0	635.2	8.1	3.2
14000.0	612.1	-5.1	2.0
15000.0	591.4	-4.9	9.1
16000.0	566.2	-7.2	26.5
17000.0	542.2	-4.1	2.0
18000.0	528.9	-15.6	11.0
19000.0	505.3	-11.7	12.0
20000.0	485.2	-14.4	13.5
21000.0	466.5	-15.6	17.5
22000.0	446.1	-19.6	1.9
23000.0	429.6	-10.5	17.7
24000.0	408.6	-25.5	54.2
25000.0	396.6	-21.9	54.7
26000.0	379.0	-31.4	42.3
27000.0	362.5	-33.3	28.2
28000.0	349.0	-33.5	54.1

RESULTS OF THE REPLICATION # 4

HEIGHT	PRESSURE	TEMPERATURE	REL HUMD
0.0	1015.3	26.3	79.5
1000.0	979.5	21.5	93.3
2000.0	949.6	23.7	47.8
3000.0	915.8	23.0	28.2
4000.0	880.3	21.5	32.4
5000.0	853.4	19.0	23.7
6000.0	825.8	15.1	33.6
7000.0	793.5	8.6	45.4
8000.0	767.5	11.7	30.8
9000.0	738.2	5.8	25.7
10000.0	709.8	12.5	27.1
11000.0	685.2	11.5	3.4
12000.0	656.6	3.8	2.0
13000.0	638.7	1.6	12.3
14000.0	610.1	0.9	6.8
15000.0	587.9	-2.2	2.0
16000.0	563.6	-0.9	1.8
17000.0	544.2	-0.9	8.2
18000.0	524.0	-10.4	14.8
19000.0	504.5	-20.0	9.8
20000.0	485.5	-12.9	11.4
21000.0	465.1	-14.2	5.1
22000.0	449.6	-21.5	0.4
23000.0	429.1	-17.7	4.2
24000.0	411.3	-23.5	42.4
25000.0	396.6	-29.6	59.8
26000.0	379.1	-27.1	57.7
27000.0	361.8	-34.5	50.0
28000.0	347.5	-28.7	67.4

RESULTS OF THE REPLICATION # 5

HEIGHT	PRESSURE	TEMPERATURE	REL HUMD
0.0	1015.3	19.2	91.8
1000.0	981.6	27.9	77.4
2000.0	950.4	19.2	26.8
3000.0	913.0	15.8	41.2
4000.0	882.6	18.1	40.8
5000.0	853.7	16.6	37.0
6000.0	823.1	16.3	49.4
7000.0	794.0	13.5	32.5
8000.0	767.5	10.9	19.1
9000.0	741.0	2.8	20.4
10000.0	711.4	13.8	28.2
11000.0	683.2	8.2	11.4
12000.0	658.7	4.0	11.3
13000.0	635.9	-2.6	7.5
14000.0	610.6	2.6	16.7
15000.0	590.7	0.0	22.8
16000.0	563.5	-6.5	18.4
17000.0	543.3	-5.1	6.9
18000.0	524.5	3.3	2.0
19000.0	505.7	-7.4	7.1
20000.0	485.3	-12.5	7.2
21000.0	463.0	-12.7	19.6
22000.0	445.5	-21.9	15.2
23000.0	429.3	-14.5	12.5
24000.0	411.1	-17.9	43.3
25000.0	394.1	-25.5	57.2
26000.0	378.5	-24.5	51.8
27000.0	360.0	-19.6	46.2
28000.0	345.3	-27.9	63.2

RESULTS OF THE REPLICATION # 6

HEIGHT	PRESSURE	TEMPERATURE	REL HUMD
0.0	1015.4	22.5	93.3
1000.0	982.9	16.0	98.0
2000.0	949.5	16.7	15.7

3000.0	915.4	24.9	33.8
4000.0	880.7	26.6	48.7
5000.0	851.6	18.8	42.4
6000.0	822.6	17.4	18.5
7000.0	796.2	17.3	36.4
8000.0	767.3	11.0	26.1
9000.0	742.2	2.4	16.1
10000.0	710.2	13.7	2.0
11000.0	683.1	-1.8	16.5
12000.0	659.4	8.3	8.4
13000.0	638.0	7.8	2.0
14000.0	612.6	1.7	14.0
15000.0	590.5	-1.2	2.0
16000.0	565.9	-3.4	5.4
17000.0	544.1	-4.1	1.8
18000.0	527.8	-8.4	10.5
19000.0	504.1	-17.1	2.0
20000.0	488.4	-9.4	9.0
21000.0	465.3	-12.8	11.7
22000.0	451.3	-15.2	4.0
23000.0	430.1	-16.3	20.3
24000.0	410.7	-19.8	44.8
25000.0	393.5	-20.5	54.1
26000.0	378.3	-28.4	39.2
27000.0	363.4	-27.1	48.6
28000.0	346.8	-28.7	63.7

RESULTS OF THE REPLICATION # 7
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HEIGHT	PRESSURE	TEMPERATURE	REL HUMD
0.0	1015.3	27.8	90.9
1000.0	983.1	12.5	93.9
2000.0	949.6	18.5	43.3
3000.0	919.7	17.2	36.9
4000.0	880.8	17.5	37.7
5000.0	849.5	14.0	37.7
6000.0	823.4	16.6	38.0
7000.0	796.7	3.8	28.7
8000.0	766.9	4.8	28.3
9000.0	741.5	12.4	34.5
10000.0	706.9	3.5	24.6
11000.0	682.1	6.7	23.2
12000.0	660.2	3.8	12.1
13000.0	637.8	-5.1	7.4
14000.0	609.1	1.3	9.8
15000.0	590.3	-12.2	16.9
16000.0	566.9	-10.1	13.9
17000.0	543.8	-8.2	7.1
18000.0	524.5	-8.9	22.4
19000.0	508.0	-7.2	11.9
20000.0	484.3	-16.4	10.3
21000.0	462.9	-18.2	6.8
22000.0	446.3	-14.4	6.5
23000.0	430.7	-14.4	0.9
24000.0	410.8	-29.5	45.6
25000.0	396.0	-14.7	64.2
26000.0	375.6	-33.5	42.3
27000.0	361.0	-32.8	61.9
28000.0	348.3	-29.7	60.9

RESULTS OF THE REPLICATION # 8
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HEIGHT	PRESSURE	TEMPERATURE	REL HUMD
0.0	1015.0	29.6	97.4
1000.0	979.7	23.3	93.8
2000.0	950.2	16.6	47.5
3000.0	915.1	19.6	44.2
4000.0	880.1	17.3	48.4
5000.0	851.3	13.3	29.0
6000.0	823.4	11.3	20.1
7000.0	795.7	10.8	33.9
8000.0	765.1	8.0	28.3
9000.0	739.9	12.4	18.6
10000.0	711.5	4.5	17.2
11000.0	683.6	5.6	12.2
12000.0	660.4	-1.7	2.0
13000.0	636.6	0.5	32.4
14000.0	609.8	4.1	2.0
15000.0	590.0	-2.2	12.7
16000.0	563.6	-3.9	15.[illegible]
17000.0	545.5	-6.2	2.[illegible]
18000.0	524.9	-12.0	2.[illegible]
19000.0	504.8	-12.2	9.[illegible]
20000.0	484.8	-20.5	3.[illegible]
21000.0	462.7	-16.0	5.[illegible]
22000.0	446.9	-17.1	3.[illegible]
23000.0	430.3	-24.6	5.[illegible]
24000.0	410.7	-16.6	51.[illegible]
25000.0	392.0	-25.0	48.[illegible]
26000.0	381.0	-25.0	58.[illegible]
27000.0	360.1	-22.3	44.[illegible]
28000.0	348.3	-38.5	58.7

RESULTS OF THE REPLICATION # 9
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HEIGHT	PRESSURE	TEMPERATURE	REL HUMD
0.0	1015.3	21.7	93.3
1000.0	982.7	24.6	83.7
2000.0	949.7	25.5	29.3
3000.0	917.7	17.1	37.0
4000.0	879.1	16.6	46.7
5000.0	850.9	23.2	37.6
6000.0	821.5	13.1	24.1
7000.0	796.9	13.2	25.3
8000.0	767.5	5.7	39.7
9000.0	740.1	18.3	31.1
10000.0	708.9	8.0	12.2
11000.0	683.0	7.8	9.4
12000.0	658.8	7.3	17.7
13000.0	637.7	-0.8	9.7
14000.0	609.5	1.8	5.8
15000.0	590.8	1.3	2.0
16000.0	565.9	-6.9	18.2
17000.0	542.6	-7.6	10.3
18000.0	529.0	-6.7	12.0
19000.0	505.3	-10.4	4.1
20000.0	484.6	-11.1	16.3
21000.0	463.2	-20.8	16.8
22000.0	449.4	-8.1	22.5
23000.0	425.9	-14.3	17.2
24000.0	410.9	-20.9	37.4
25000.0	396.9	-25.4	69.8
26000.0	378.1	-31.3	39.0
27000.0	362.8	-31.3	46.5
28000.0	347.2	-32.9	64.1

RESULTS OF THE REPLICATION # 10
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HEIGHT	PRESSURE	TEMPERATURE	REL HUMD
0.0	1015.3	30.7	87.7
1000.0	983.4	14.1	98.5
2000.0	952.0	24.7	29.7
3000.0	916.1	20.2	28.4
4000.0	879.1	16.4	49.8
5000.0	853.3	11.3	34.5
6000.0	824.5	22.4	43.6
7000.0	795.7	16.6	24.7
8000.0	766.9	11.4	29.2
9000.0	740.3	8.7	21.0
10000.0	709.0	11.7	15.0
11000.0	684.7	9.0	18.0
12000.0	661.0	-2.2	2.0
13000.0	635.7	2.5	4.8
14000.0	607.8	2.7	3.2
15000.0	589.8	2.0	5.0
16000.0	567.0	-1.1	2.0
17000.0	544.4	-9.6	2.8
18000.0	525.4	-11.0	12.7
19000.0	504.6	-13.2	1.3
20000.0	485.1	-17.1	6.3
21000.0	468.4	-23.0	2.0
22000.0	445.2	-20.5	1.1
23000.0	426.4	-21.8	2.0
24000.0	411.2	-21.7	43.2
25000.0	394.8	-26.8	54.1
26000.0	379.4	-29.5	49.3
27000.0	361.1	-33.4	35.4
28000.0	345.4	-33.7	57.0

FILE: CAL2A

RESULTS OF THE REPLICATION # 1

HEIGHT	PRESSURE	TEMPERATURE	REL HUMD
0.0	1015.8	15.7	98.0
1000.0	986.2	17.1	80.9
2000.0	949.7	20.4	18.8
3000.0	914.4	19.6	23.6
4000.0	880.4	18.3	33.8
5000.0	852.4	18.4	31.6
6000.0	819.8	13.5	36.4
7000.0	789.1	14.6	31.6
8000.0	765.3	12.0	33.2
9000.0	738.9	7.9	40.1
10000.0	710.6	7.2	38.7
11000.0	683.3	4.8	40.8
12000.0	663.5	1.0	20.6
13000.0	639.4	1.3	14.1
14000.0	616.0	1.4	2.0
15000.0	589.5	-1.8	19.5
16000.0	568.6	-3.6	3.0
17000.0	542.3	-6.0	10.6
18000.0	523.5	-10.5	2.0
19000.0	503.3	-12.6	9.0
20000.0	486.3	-14.8	34.2
21000.0	461.7	-16.8	8.2
22000.0	442.2	-18.3	18.8
23000.0	426.9	-21.0	2.0
24000.0	407.9	-23.4	12.9
25000.0	397.7	-24.8	44.5
26000.0	379.7	-25.8	34.1
27000.0	362.7	-28.0	44.5
28000.0	344.7	-30.8	40.4

RESULTS OF THE REPLICATION # 2

HEIGHT	PRESSURE	TEMPERATURE	REL HUMD
0.0	1015.8	16.7	98.0
1000.0	983.0	19.8	59.3
2000.0	942.7	19.8	53.8
3000.0	917.3	20.5	23.4
4000.0	887.2	20.3	37.5
5000.0	852.2	19.2	31.8
6000.0	817.3	16.5	23.1
7000.0	796.9	12.2	34.9
8000.0	766.1	11.2	41.2
9000.0	737.2	8.7	42.2
10000.0	709.4	7.6	27.3
11000.0	685.2	5.6	37.2
12000.0	656.3	4.0	18.3
13000.0	638.8	0.1	2.0
14000.0	610.9	-0.2	3.7
15000.0	589.1	-3.9	16.2
16000.0	563.6	-4.5	14.1
17000.0	543.5	-5.6	2.7
18000.0	524.0	-10.4	15.7
19000.0	505.1	-11.3	6.5
20000.0	488.6	-16.1	16.0
21000.0	464.0	-17.4	3.9
22000.0	443.8	-19.4	33.0
23000.0	429.2	-19.7	12.3
24000.0	412.1	-23.2	27.0
25000.0	394.1	-24.6	30.5
26000.0	379.1	-26.9	30.7
27000.0	367.3	-29.2	32.2
28000.0	345.9	-30.5	52.3

RESULTS OF THE REPLICATION # 3

HEIGHT	PRESSURE	TEMPERATURE	REL HUMD
0.0	1014.9	16.5	95.9
1000.0	987.4	19.4	60.5
2000.0	949.1	19.9	24.3
3000.0	913.3	20.6	42.8
4000.0	881.6	19.3	36.2
5000.0	853.5	17.3	40.4
6000.0	822.9	14.1	14.8
7000.0	791.7	14.2	36.5
8000.0	766.0	9.5	35.0
9000.0	738.0	10.5	46.1
10000.0	706.9	6.5	29.0
11000.0	683.2	5.0	38.5
12000.0	660.2	1.2	49.9
13000.0	633.8	3.6	4.2
14000.0	614.3	-1.5	0.9
15000.0	589.4	-3.6	10.1
16000.0	567.6	-5.3	20.5
17000.0	541.0	-6.3	2.0
18000.0	528.7	-11.4	17.0
19000.0	502.7	-12.0	18.0
20000.0	482.0	-14.5	20.5
21000.0	467.8	-17.0	26.5
22000.0	444.9	-18.8	13.9
23000.0	429.7	-18.2	17.7
24000.0	405.3	-24.0	36.2
25000.0	395.8	-24.7	51.7
26000.0	378.7	-27.7	26.3
27000.0	361.9	-30.0	15.2
28000.0	348.7	-32.0	53.1

RESULTS OF THE REPLICATION # 4

HEIGHT	PRESSURE	TEMPERATURE	REL HUMD
0.0	1015.8	17.2	88.5
1000.0	980.3	18.7	66.3
2000.0	945.5	21.2	46.8
3000.0	913.4	21.3	20.2
4000.0	883.1	19.2	32.4
5000.0	855.8	17.5	24.7
6000.0	824.6	14.9	33.6
7000.0	790.7	11.9	46.4
8000.0	765.6	11.0	37.8
9000.0	736.1	8.0	40.7
10000.0	709.4	7.7	47.1
11000.0	685.2	6.0	24.4
12000.0	655.6	2.5	17.2
13000.0	639.7	2.0	13.3
14000.0	611.0	0.0	8.8
15000.0	583.7	-2.9	2.0
16000.0	563.3	-3.7	2.0
17000.0	544.3	-5.5	8.2
18000.0	520.6	-10.1	20.8
19000.0	501.3	-14.1	15.8
20000.0	482.5	-14.1	18.4
21000.0	465.4	-16.6	14.1
22000.0	450.7	-19.3	12.4
23000.0	428.8	-20.0	4.2
24000.0	409.8	-23.5	24.4
25000.0	395.7	-26.6	56.8
26000.0	378.8	-26.6	41.7
27000.0	360.7	-30.3	37.0
28000.0	346.1	-30.8	66.4

RESULTS OF THE REPLICATION # 5

HEIGHT	PRESSURE	TEMPERATURE	REL HUMD
0.0	1015.8	15.4	98.0
1000.0	983.8	20.3	50.4
2000.0	946.8	20.0	25.8
3000.0	908.7	19.5	33.2
4000.0	887.0	18.4	40.8
5000.0	856.3	16.9	38.0
6000.0	820.2	15.2	49.4
7000.0	791.5	13.2	33.5
8000.0	765.7	10.8	26.1
9000.0	740.8	7.2	35.4
10000.0	712.0	8.0	48.2
11000.0	681.9	5.2	32.4
12000.0	659.1	2.5	35.3
13000.0	635.0	1.0	8.5
14000.0	611.9	0.4	18.7
15000.0	588.2	-2.4	23.8
16000.0	563.3	-5.1	12.4
17000.0	542.7	-6.5	6.9
18000.0	521.5	-6.6	2.3
19000.0	503.4	-10.9	13.1
20000.0	482.1	-14.0	14.2
21000.0	461.9	-16.2	28.6
22000.0	443.9	-19.4	27.2
23000.0	429.1	-19.2	12.5
24000.0	409.6	-22.1	25.3
25000.0	391.6	-25.6	54.2
26000.0	377.8	-25.9	35.8
27000.0	357.6	-26.6	33.2
28000.0	342.4	-30.6	62.2

RESULTS OF THE REPLICATION # 6

HEIGHT	PRESSURE	TEMPERATURE	REL HUMD
0.0	1015.3	16.3	98.0
1000.0	985.8	17.3	76.3
2000.0	945.3	19.4	14.7

3000.0	912.6	21.8	25.8
4000.0	883.7	20.5	48.7
5000.0	852.8	17.5	43.4
6000.0	819.3	15.5	18.5
7000.0	795.2	14.1	37.4
8000.0	765.3	10.8	33.1
9000.0	742.7	7.1	31.1
10000.0	710.1	8.0	19.4
11000.0	681.7	2.7	37.5
12000.0	660.3	3.6	32.4
13000.0	638.6	3.5	2.0
14000.0	615.2	0.2	16.0
15000.0	588.0	-2.7	0.8
16000.0	567.1	-4.4	2.0
17000.0	544.1	-6.3	1.8
18000.0	526.9	-9.6	16.5
19000.0	500.7	-13.4	3.5
20000.0	487.4	-13.3	16.0
21000.0	465.7	-16.3	20.7
22000.0	453.6	-17.7	16.0
23000.0	430.5	-19.6	20.3
24000.0	408.9	-22.6	26.8
25000.0	390.6	-24.3	51.1
26000.0	377.4	-26.9	23.2
27000.0	363.4	-28.4	35.6
28000.0	345.0	-30.8	62.7

RESULTS OF THE REPLICATION # 7
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HEIGHT	PRESSURE	TEMPERATURE	REL HUMD
0.0	1015.8	17.6	99.9
1000.0	986.2	16.4	66.9
2000.0	945.5	19.9	42.3
3000.0	919.8	19.8	28.9
4000.0	884.0	18.2	37.7
5000.0	849.3	16.3	38.7
6000.0	820.7	15.3	38.0
7000.0	796.0	10.8	29.7
8000.0	764.6	9.3	35.3
9000.0	741.5	9.6	49.5
10000.0	704.6	5.4	44.6
11000.0	680.2	4.8	44.2
12000.0	661.7	2.5	36.1
13000.0	638.2	0.3	8.4
14000.0	609.4	0.1	11.8
15000.0	587.6	-5.4	17.9
16000.0	568.8	-6.0	7.9
17000.0	543.6	-7.3	7.1
18000.0	521.5	-9.7	28.4
19000.0	507.2	-10.9	17.9
20000.0	480.5	-15.0	17.3
21000.0	461.8	-17.6	15.8
22000.0	445.2	-17.5	18.5
23000.0	431.4	-19.1	0.9
24000.0	409.0	-25.0	27.6
25000.0	394.7	-22.9	61.2
26000.0	373.0	-28.2	26.3
27000.0	359.4	-29.9	48.9
28000.0	347.4	-31.0	59.9

RESULTS OF THE REPLICATION # 8
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HEIGHT	PRESSURE	TEMPERATURE	REL HUMD
0.0	1014.7	18.1	98.0
1000.0	980.6	19.2	66.8
2000.0	946.5	19.4	46.5
3000.0	912.2	20.4	36.2
4000.0	882.8	18.1	48.4
5000.0	852.3	16.1	30.0
6000.0	820.8	14.0	20.1
7000.0	794.3	12.5	34.9
8000.0	761.7	10.1	35.3
9000.0	738.8	9.6	33.6
10000.0	712.2	5.6	37.2
11000.0	682.7	4.6	33.2
12000.0	662.0	1.1	20.0
13000.0	636.2	1.7	33.4
14000.0	610.6	0.8	1.4
15000.0	587.2	-2.9	13.7
16000.0	563.4	-4.5	9.9
17000.0	546.4	-6.8	2.4
18000.0	522.1	-10.4	6.0
19000.0	501.9	-12.1	15.7
20000.0	481.3	-16.0	10.5
21000.0	461.4	-17.1	14.2
22000.0	446.3	-18.2	15.5
23000.0	430.9	-21.7	5.0
24000.0	408.8	-21.8	33.3
25000.0	388.1	-25.5	45.9
26000.0	381.9	-26.1	42.4
27000.0	357.9	-27.2	31.9
28000.0	347.4	-33.2	57.7

RESULTS OF THE REPLICATION # 9
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HEIGHT	PRESSURE	TEMPERATURE	REL HUMD
0.0	1015.8	16.1	98.0
1000.0	985.6	19.5	56.7
2000.0	945.7	21.6	28.3
3000.0	916.5	19.8	29.0
4000.0	881.2	18.0	46.7
5000.0	851.6	18.6	38.6
6000.0	817.6	14.4	24.1
7000.0	796.4	13.1	26.3
8000.0	765.7	9.5	46.7
9000.0	739.3	11.1	46.1
10000.0	707.9	6.5	32.2
11000.0	681.7	5.1	30.4
12000.0	659.3	3.3	41.7
13000.0	638.1	1.4	10.7
14000.0	610.0	0.3	7.8
15000.0	588.5	-2.0	2.0
16000.0	567.3	-5.2	12.2
17000.0	541.5	-7.1	10.3
18000.0	529.0	-9.1	18.0
19000.0	502.7	-11.7	10.1
20000.0	481.0	-13.7	23.3
21000.0	462.2	-18.3	25.8
22000.0	450.5	-15.9	34.5
23000.0	423.5	-19.1	17.2
24000.0	409.2	-22.9	19.4
25000.0	396.3	-25.6	66.8
26000.0	377.3	-27.7	23.0
27000.0	362.3	-29.5	33.5
28000.0	345.7	-31.8	63.1

RESULTS OF THE REPLICATION # 10
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HEIGHT	PRESSURE	TEMPERATURE	REL HUMD
0.0	1015.8	18.3	96.7
1000.0	986.7	16.8	71.5
2000.0	949.5	21.4	28.7
3000.0	913.9	20.6	20.4
4000.0	881.1	17.9	49.8
5000.0	855.7	15.6	35.5
6000.0	822.6	16.8	43.6
7000.0	794.4	14.0	25.7
8000.0	764.6	10.9	36.2
9000.0	739.6	8.7	36.0
10000.0	708.0	7.5	35.0
11000.0	684.5	5.4	39.0
12000.0	663.0	1.0	17.8
13000.0	634.8	2.2	5.8
14000.0	607.1	0.5	5.2
15000.0	586.8	-1.9	6.0
16000.0	569.0	-3.8	2.0
17000.0	544.7	-7.7	2.8
18000.0	523.0	-10.2	18.7
19000.0	501.5	-12.4	7.3
20000.0	481.9	-15.2	13.3
21000.0	470.8	-18.8	6.6
22000.0	443.5	-19.0	13.1
23000.0	424.3	-21.0	2.0
24000.0	409.7	-23.1	25.2
25000.0	392.8	-25.9	51.1
26000.0	379.3	-27.2	33.3
27000.0	359.6	-30.0	22.4
28000.0	342.7	-32.0	56.0

FILE: CAL8F

RESULTS OF THE REPLICATION # 1

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HEIGHT	PRESSURE	TEMPERATURE	REL HUMD
0.0	1017.6	12.5	97.8
1000.0	985.5	6.7	98.0
2000.0	951.2	18.5	9.8
3000.0	915.4	14.4	24.6
4000.0	881.3	15.2	42.8
5000.0	852.2	20.2	29.6
6000.0	820.4	6.4	41.4
7000.0	790.6	15.9	42.6
8000.0	766.0	12.7	37.2
9000.0	735.0	2.4	45.1
10000.0	710.0	6.3	51.7
11000.0	683.3	2.6	53.8
12000.0	659.9	-7.8	45.6
13000.0	635.7	-6.5	40.1
14000.0	612.3	2.9	52.0
15000.0	587.3	0.4	86.5
16000.0	565.6	-2.3	83.0
17000.0	540.0	-4.6	87.6
18000.0	521.4	-14.6	58.2
19000.0	500.8	-15.4	51.0
20000.0	482.3	-16.7	40.2
21000.0	461.1	-15.6	29.2
22000.0	442.2	-18.8	42.8
23000.0	424.8	-23.8	34.2
24000.0	407.5	-23.9	14.9
25000.0	394.7	-23.4	14.5
26000.0	377.3	-24.6	25.1
27000.0	360.1	-26.0	54.5
28000.0	344.7	-29.3	10.4

RESULTS OF THE REPLICATION # 2

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HEIGHT	PRESSURE	TEMPERATURE	REL HUMD
0.0	1017.6	16.8	98.0
1000.0	983.6	17.3	82.3
2000.0	947.0	16.3	44.8
3000.0	917.1	18.0	24.4
4000.0	885.4	23.3	46.5
5000.0	852.1	23.5	29.8
6000.0	818.9	18.4	28.1
7000.0	795.3	6.2	45.9
8000.0	766.5	9.3	45.2
9000.0	734.0	5.4	47.2
10000.0	709.3	8.0	40.3
11000.0	684.5	5.8	50.2
12000.0	655.6	4.3	43.3
13000.0	635.3	-11.2	25.4
14000.0	609.2	-3.3	57.7
15000.0	587.1	-7.8	83.2
16000.0	562.6	-5.8	94.1
17000.0	540.8	-3.0	79.7
18000.0	521.7	-14.4	76.7
19000.0	501.9	-10.3	48.5
20000.0	483.7	-21.9	22.0
21000.0	462.5	-17.8	24.9
22000.0	443.1	-23.3	57.0
23000.0	426.1	-18.6	48.3
24000.0	410.1	-23.1	29.0
25000.0	392.5	-22.5	0.5
26000.0	377.0	-29.1	21.7
27000.0	362.9	-30.7	42.2
28000.0	345.4	-27.9	22.3

RESULTS OF THE REPLICATION # 3

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HEIGHT	PRESSURE	TEMPERATURE	REL HUMD
0.0	1017.6	16.1	92.9
1000.0	986.2	15.8	83.5
2000.0	950.9	16.3	15.3
3000.0	914.7	18.2	43.8
4000.0	882.0	19.2	45.2
5000.0	852.9	16.1	38.4
6000.0	822.2	8.8	19.8
7000.0	792.2	14.4	47.5
8000.0	766.4	2.3	39.0
9000.0	734.5	12.8	51.1
10000.0	707.8	3.5	42.0
11000.0	683.3	3.3	51.5
12000.0	657.9	-6.9	74.9
13000.0	632.4	3.0	30.2
14000.0	611.3	-8.5	54.9
15000.0	587.3	-6.8	77.1
16000.0	565.1	-9.0	98.0
17000.0	539.2	-5.7	62.4
18000.0	524.6	-18.0	78.0
19000.0	500.5	-13.2	60.0
20000.0	479.7	-15.4	26.5
21000.0	464.7	-16.2	47.5
22000.0	443.8	-20.8	37.9
23000.0	426.4	-12.4	53.7
24000.0	406.0	-26.4	38.2
25000.0	393.5	-22.8	21.7
26000.0	376.7	-32.1	17.3
27000.0	359.6	-33.9	25.2
28000.0	347.1	-33.9	23.1

RESULTS OF THE REPLICATION # 4

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HEIGHT	PRESSURE	TEMPERATURE	REL HUMD
0.0	1017.6	18.8	85.5
1000.0	981.9	13.1	89.3
2000.0	948.7	21.6	37.8
3000.0	914.7	20.9	21.2
4000.0	882.9	18.7	41.4
5000.0	854.3	16.8	22.7
6000.0	823.3	12.0	38.6
7000.0	791.6	5.3	57.4
8000.0	766.2	8.5	41.8
9000.0	733.3	2.5	45.7
10000.0	709.3	8.3	60.1
11000.0	684.5	7.6	37.4
12000.0	655.2	-1.8	42.2
13000.0	635.9	-3.5	39.3
14000.0	609.3	-2.5	62.8
15000.0	583.8	-4.1	61.0
16000.0	562.5	-2.7	75.8
17000.0	541.2	-2.5	85.2
18000.0	519.7	-12.8	81.8
19000.0	499.7	-21.5	57.8
20000.0	480.0	-13.9	24.4
21000.0	463.3	-14.8	35.1
22000.0	447.3	-22.7	36.4
23000.0	425.9	-19.6	40.2
24000.0	408.7	-24.4	26.4
25000.0	393.5	-30.5	26.8
26000.0	376.8	-27.8	32.7
27000.0	358.9	-35.1	47.0
28000.0	345.6	-29.1	36.4

RESULTS OF THE REPLICATION # 5

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HEIGHT	PRESSURE	TEMPERATURE	REL HUMD
0.0	1017.6	11.7	97.8
1000.0	984.0	19.5	73.4
2000.0	949.5	17.1	16.8
3000.0	911.9	13.7	34.2
4000.0	885.2	15.3	49.8
5000.0	854.6	14.4	36.0
6000.0	820.6	13.2	54.4
7000.0	792.1	10.2	44.5
8000.0	766.2	7.7	30.1
9000.0	736.1	-0.5	40.4
10000.0	710.9	9.6	61.2
11000.0	682.5	4.3	45.4
12000.0	657.3	-1.6	60.3
13000.0	633.1	-7.7	34.5
14000.0	609.8	-0.8	72.7
15000.0	586.6	-1.9	90.8
16000.0	562.4	-8.3	92.4
17000.0	540.3	-6.7	83.9
18000.0	520.2	0.9	63.3
19000.0	500.9	-8.9	55.1
20000.0	479.8	-13.5	20.2
21000.0	461.2	-13.3	49.6
22000.0	443.2	-23.1	51.2
23000.0	426.1	-16.4	48.5
24000.0	408.5	-18.8	27.3
25000.0	391.0	-26.4	24.2
26000.0	376.2	-25.2	26.8
27000.0	357.1	-20.2	43.2
28000.0	343.4	-28.3	32.2

RESULTS OF THE REPLICATION # 6

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HEIGHT	PRESSURE	TEMPERATURE	REL HUMD
0.0	1017.6	15.0	99.3
1000.0	985.3	7.6	99.3
2000.0	948.6	14.6	5.7

3000.0	914.3	22.8	26.8
4000.0	883.3	23.8	57.7
5000.0	852.5	16.6	41.4
6000.0	820.1	14.3	23.5
7000.0	794.3	14.0	48.4
8000.0	766.0	7.8	37.1
9000.0	737.3	-0.9	36.1
10000.0	709.7	9.5	32.4
11000.0	682.4	-5.7	50.5
12000.0	658.0	2.7	57.4
13000.0	635.2	2.7	25.7
14000.0	611.8	-1.7	70.0
15000.0	586.4	-3.1	67.8
16000.0	564.8	-5.2	79.4
17000.0	541.1	-5.7	78.8
18000.0	523.5	-10.8	77.5
19000.0	499.3	-18.6	45.5
20000.0	482.9	-10.4	22.0
21000.0	463.5	-13.4	41.7
22000.0	449.0	-16.4	40.0
23000.0	426.9	-18.2	56.3
24000.0	408.1	-20.7	28.8
25000.0	390.4	-21.4	21.1
26000.0	376.0	-29.1	14.2
27000.0	360.5	-27.7	45.6
28000.0	344.9	-29.1	32.7

RESULTS OF THE REPLICATION # 7
================================

HEIGHT	PRESSURE	TEMPERATURE	REL HUMD
0.0	1017.6	20.3	96.9
1000.0	985.5	4.1	89.9
2000.0	948.7	16.4	33.3
3000.0	918.6	15.1	29.9
4000.0	883.4	14.7	46.7
5000.0	850.4	11.8	36.7
6000.0	820.9	13.5	43.0
7000.0	794.8	0.5	40.7
8000.0	765.6	1.6	39.3
9000.0	736.6	9.1	54.5
10000.0	706.4	-0.7	57.6
11000.0	681.4	2.8	57.2
12000.0	658.8	-1.8	61.1
13000.0	635.0	-10.2	34.4
14000.0	608.3	-2.1	65.8
15000.0	586.2	-14.1	84.9
16000.0	565.8	-11.9	87.9
17000.0	540.8	-9.8	84.1
18000.0	520.2	-11.3	89.4
19000.0	503.2	-8.7	59.9
20000.0	478.8	-17.4	23.3
21000.0	461.1	-18.8	36.8
22000.0	444.0	-15.6	42.5
23000.0	427.5	-16.3	36.9
24000.0	408.2	-30.4	29.6
25000.0	392.9	-15.6	31.2
26000.0	373.3	-34.2	17.3
27000.0	358.1	-33.4	58.9
28000.0	346.4	-30.1	29.9

RESULTS OF THE REPLICATION # 8
================================

HEIGHT	PRESSURE	TEMPERATURE	REL HUMD
0.0	1017.6	22.1	98.0
1000.0	982.1	14.9	89.8
2000.0	949.3	14.5	37.5
3000.0	914.0	17.5	37.2
4000.0	882.7	14.5	57.4
5000.0	852.2	11.1	28.0
6000.0	820.9	8.2	25.1
7000.0	793.8	7.5	45.9
8000.0	763.8	4.8	39.3
9000.0	735.0	9.1	38.6
10000.0	711.0	0.3	50.2
11000.0	682.9	1.7	46.2
12000.0	659.0	-7.3	45.0
13000.0	633.8	-4.6	59.4
14000.0	609.0	0.7	55.4
15000.0	585.9	-4.1	80.7
16000.0	562.5	-5.7	89.9
17000.0	542.5	-7.8	79.4
18000.0	520.6	-14.4	66.9
19000.0	500.0	-13.7	57.7
20000.0	479.3	-21.5	16.5
21000.0	460.9	-16.6	35.2
22000.0	444.6	-18.3	39.5
23000.0	427.1	-26.5	41.0
24000.0	408.1	-17.5	35.3
25000.0	388.9	-25.9	15.9
26000.0	378.7	-25.7	33.4
27000.0	357.2	-22.9	41.9
28000.0	346.4	-38.9	27.7

RESULTS OF THE REPLICATION # 9
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HEIGHT	PRESSURE	TEMPERATURE	REL HUMD
0.0	1017.6	14.2	99.3
1000.0	985.1	16.2	79.7
2000.0	948.8	23.4	19.3
3000.0	916.6	15.0	30.0
4000.0	881.7	13.8	55.7
5000.0	851.8	21.0	36.6
6000.0	819.0	10.0	29.1
7000.0	795.0	9.9	37.3
8000.0	766.2	2.5	50.7
9000.0	735.2	15.0	51.1
10000.0	708.4	3.8	45.2
11000.0	682.3	3.9	43.4
12000.0	657.4	1.7	66.7
13000.0	634.9	-5.9	36.7
14000.0	608.7	-1.6	61.8
15000.0	586.7	-0.6	62.4
16000.0	564.8	-8.7	92.2
17000.0	539.6	-9.2	87.3
18000.0	524.7	-9.1	79.0
19000.0	500.5	-11.9	52.1
20000.0	479.1	-12.1	29.3
21000.0	461.4	-21.4	46.8
22000.0	447.1	-9.3	58.5
23000.0	422.7	-16.2	53.2
24000.0	408.3	-21.8	21.4
25000.0	393.8	-26.3	36.8
26000.0	375.8	-32.0	14.0
27000.0	359.9	-31.9	43.5
28000.0	345.3	-33.3	33.1

RESULTS OF THE REPLICATION # 10
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HEIGHT	PRESSURE	TEMPERATURE	REL HUMD
0.0	1017.6	23.2	93.7
1000.0	985.8	5.7	94.5
2000.0	951.1	22.6	19.7
3000.0	915.0	18.1	21.4
4000.0	881.7	13.6	58.8
5000.0	854.2	9.1	33.5
6000.0	822.0	19.3	48.6
7000.0	793.8	13.3	36.7
8000.0	765.6	8.2	40.2
9000.0	735.4	5.4	41.0
10000.0	708.5	7.5	48.0
11000.0	684.0	5.1	52.0
12000.0	659.6	-7.8	42.8
13000.0	632.9	-2.6	31.8
14000.0	607.0	-0.7	59.2
15000.0	585.7	0.1	73.0
16000.0	565.9	-2.9	66.5
17000.0	541.4	-11.2	79.8
18000.0	521.1	-13.4	79.7
19000.0	499.8	-14.7	49.3
20000.0	479.6	-18.1	19.3
21000.0	466.6	-23.6	27.6
22000.0	442.9	-21.7	37.1
23000.0	423.2	-23.7	23.7
24000.0	408.6	-22.6	27.2
25000.0	391.7	-27.7	21.1
26000.0	377.1	-30.2	24.3
27000.0	358.2	-34.0	32.4
28000.0	343.5	-34.1	26.0

APPENDIX 5

UFLR PREDICTED PERFORMANCES FOR UNDITHERED ATMOSPHERIC PROFILES

UFLR output for CAL1

TARGET	1			2			3			4		
ALTITUDE FEET	DET	CLASS (NMI)	ID	DET	CLASS (NMI)	ID	DET	CLASS (NMI)	ID	DET	CLASS (NMI)	ID
500	5.9	2.7	1.2	6.8	4.0	1.9	7.9	5.6	2.6	8.1	5.8	2.6
1000	5.9	2.7	1.2	6.8	4.0	1.9	7.9	5.6	2.6	8.1	5.8	2.6
1500	6.4	2.8	1.0	7.5	4.2	1.9	8.8	6.2	2.9	9.0	6.5	3.0
2000	7.3	2.9	1.0	8.6	4.5	2.0	10.3	7:1	3.3	10.5	7.4	3.5
2500	8.1	3.0	1.1	9.6	4.8	1.8	11.6	7.8	3.6	12.0	8.3	3.9
3000	8.8	3.0	1.2	10.5	4.9	1.7	12.8	8.3	3.9	13.2	8.9	4.2
3500	9.4	3.0	1.3	11.3	5.0	1.7	13.8	8.8	4.2	14.3	9.4	4.4
4000	9.9	2.9	1.4	12.0	5.1	1.8	14.8	9.2	4.3	15.3	9.9	4.7
5000	10.8	2.9	1.4	13.2	5.2	2.0	16.5	9.8	4.1	17.1	10.7	4.9
7500	12.8	3.1	1.4	15.9	5.1	2.4	20.4	10.8	3.9	21.2	11.9	4.5
10000	14.6	3.5	0.0	18.3	5.2	2.5	23.9	11.7	4.3	25.0	12.9	4.7
15000	17.4	3.6	0.0	22.7	5.8	2.6	30.2	11.8	5.4	31.7	13.7	5.8
20000	20.3	3.6	0.0	26.0	6.2	0.0	35.3	11.9	5.7	37.1	13.7	6.7
25000	22.6	0.0	0.0	28.5	6.3	0.0	39.8	12.3	6.0	41.8	13.9	6.7
30000	24.5	0.0	0.0	31.3	6.4	0.0	43.4	12.8	6.0	45.8	14.4	7.0

UFLR output for CAL2

TARGET	1			2			3			4		
ALTITUDE FEET	DET	CLASS (NMI)	ID	DET	CLASS (NMI)	ID	DET	CLASS (NMI)	ID	DET	CLASS (NMI)	ID
500	8.1	3.1	1.4	9.6	4.8	2.2	11.6	7.7	3.7	11.9	8.2	3.9
1000	8.8	3.1	1.3	10.5	4.9	2.3	12.8	8.3	4.0	13.2	8.9	4.3
1500	9.5	3.2	1.2	11.5	5.1	2.2	14.1	8.9	4.3	14.6	9.5	4.6
2000	10.3	3.2	1.1	12.5	5.3	2.4	15.5	9.4	4.6	16.0	10.2	4.9
2500	11.0	3.3	1.1	13.4	5.4	2.0	16.8	9.9	4.7	17.4	10.8	5.2
3000	11.6	3.3	1.2	14.3	5.5	1.9	18.0	10.3	4.8	18.6	11.3	5.4
3500	12.1	3.2	1.3	14.9	5.5	1.9	18.9	10.6	4.8	19.7	11.6	5.4
4000	12.5	3.1	1.4	15.5	5.6	1.9	19.7	10.8	5.0	20.5	11.9	5.4
5000	13.2	3.0	1.4	16.4	5.7	2.1	21.0	11.1	4.8	21.8	12.3	5.9
7500	14.7	3.2	1.5	18.5	5.3	2.5	24.1	11.7	4.1	25.1	13.2	4.9
10000	16.0	3.5	0.0	20.2	5.3	2.5	26.6	12.2	4.4	27.8	13.6	4.9
15000	18.1	3.6	0.0	23.5	5.8	2.6	31.3	12.0	5.5	32.8	14.0	5.8
20000	20.4	3.7	0.0	26.0	6.2	0.0	35.1	12.0	5.7	36.9	13.8	6.8
25000	22.3	0.0	0.0	28.0	6.3	0.0	38.4	12.3	6.0	40.3	13.9	6.7
30000	23.7	0.0	0.0	30.1	6.4	0.0	40.8	12.8	6.0	42.9	14.3	7.0

UFLR output for CAL3

TARGET	1			2			3			4		
ALTITUDE FEET	DET	CLASS (NMI)	ID	DET	CLASS (NMI)	ID	DET	CLASS (NMI)	ID	DET	CLASS (NMI)	ID
500	8.0	3.0	1.4	9.5	4.7	2.2	11.5	7.7	3.7	11.9	8.1	3.9
1000	8.2	3.1	1.3	9.7	4.8	2.2	11.8	7.8	3.8	12.2	8.3	4.0
1500	9.1	3.2	1.1	10.9	5.0	2.2	13.3	8.6	4.1	13.7	9.1	4.4
2000	10.2	3.2	1.1	12.4	5.3	2.4	15.3	9.4	4.6	15.9	10.2	4.9
2500	11.2	3.3	1.1	13.7	5.5	2.1	17.1	10.0	4.8	17.7	11.0	5.3
3000	11.9	3.4	1.2	14.6	5.6	1.9	18.4	10.5	4.8	19.1	11.5	5.5
3500	12.4	3.2	1.3	15.3	5.6	1.9	19.5	10.8	4.9	20.2	11.8	5.5
4000	12.9	3.1	1.4	16.1	5.6	1.9	20.5	11.0	5.0	21.3	12.2	5.6
5000	14.0	3.0	1.4	17.5	5.9	2.1	22.5	11.6	5.0	23.4	12.8	6.0
7500	15.9	3.2	1.5	20.2	5.4	2.6	26.3	12.2	4.3	27.5	13.8	5.0
10000	17.0	3.5	0.0	21.7	5.3	2.5	28.8	12.6	4.5	30.1	14.1	5.0
15000	19.4	3.6	0.0	25.2	5.8	2.6	33.8	12.4	5.5	35.5	14.5	5.9
20000	21.3	3.7	0.0	27.6	6.3	0.0	37.5	12.2	5.8	39.4	14.1	6.9
25000	23.2	0.0	0.0	29.3	6.4	0.0	40.6	12.4	6.0	42.6	14.1	6.8
30000	24.7	0.0	0.0	31.4	6.4	0 0	43.1	12.9	6.1	45.3	14.4	7.1

UFLR output for CAL4

TARGET	1			2			3			4		
ALTITUDE FEET	DET	CLASS (NMI)	ID	DET	CLASS (NMI)	ID	DET	CLASS (NMI)	ID	DET	CLASS (NMI)	ID
500	6.0	2.8	1.2	6.9	4.0	1.9	8.1	5.7	2.6	8.2	5.9	2.7
1000	6.3	2.8	1.2	7.3	4.2	2.0	8.6	6.0	2.8	8.8	6.3	2.9
1500	6.9	2.9	1.1	8.0	4.4	2.0	9.5	6.6	3.1	9.8	6.9	3.2
2000	7.7	3.0	1.0	9.1	4.7	2.1	10.9	7.4	3.5	11.3	7.8	3.7
2500	8.5	3.1	1.1	10.2	4.9	1.8	12.4	8.1	3.8	12.8	8.7	4.1
3000	9.3	3.1	1.2	11.2	5.0	1.8	13.7	8.7	4.1	14.1	9.4	4.4
3500	9.9	3.0	1.3	12.0	5.1	1.8	14.9	9.2	4.3	15.4	9.9	4.7
4000	10.5	3.0	1.4	12.8	5.2	1.8	15.9	9.6	4.6	16.5	10.4	4.9
5000	11.5	2.9	1.4	14.1	5.4	2.0	17.8	10.2	4.3	18.4	11.2	5.2
7500	13.5	3.1	1.4	16.8	5.1	2.5	21.7	11.1	4.0	22.6	12.4	4.6
10000	15.0	3.5	0.0	18.8	5.2	2.5	24.6	11.9	4.3	25.7	13.1	4.8
15000	17.3	3.6	0.0	22.4	5.8	2.6	29.8	11.7	5.4	31.2	13.6	5.8
20000	19.9	3.6	0.0	25.3	6.2	0.0	34.3	11.8	5.7	35.9	13.6	6.7
25000	22.1	0.0	0.0	27.7	6.3	0.0	38.1	12.2	6.0	40.0	13.8	6.7
30000	23.8	0.0	0.0	30.3	6.4	0.0	41.2	12.7	6.0	43.4	14.2	7.0

UFLR output for CAL5

TARGET	1			2			3			4		
ALTITUDE FEET	DET	CLASS (NMI)	ID	DET	CLASS (NMI)	ID	DET	CLASS (NMI)	ID	DET	CLASS (NMI)	ID
500	8.5	3.1	1.4	10.1	4.9	2.2	12.2	8.1	4.0	12.6	8.6	4.2
1000	9.7	3.3	1.3	11.7	5.2	2.3	14.4	9.1	4.5	14.8	9.8	4.8
1500	10.7	3.3	1.2	13.0	5.4	2.3	16.1	9.7	4.7	16.7	10.5	5.2
2000	11.3	3.3	1.1	13.9	5.5	2.4	17.3	10.1	4.9	17.9	11.1	5.4
2500	11.8	3.3	1.1	14.5	5.6	2.1	18.2	10.4	5.0	18.9	11.4	5.6
3000	12.2	3.4	1.2	15.1	5.7	1.9	19.0	10.7	5.0	19.7	11.7	5.7
3500	12.6	3.2	1.3	15.6	5.6	1.9	19.7	10.9	4.9	20.5	12.0	5.6
4000	13.0	3.1	1.4	16.1	5.7	1.9	20.5	11.1	5.1	21.3	12.3	5.6
5000	13.7	3.0	1.4	17.0	5.8	2.1	21.7	11.4	5.0	22.6	12.6	6.0
7500	14.7	3.2	1.5	18.5	5.3	2.6	23.9	11.8	4.2	24.9	13.2	4.9
10000	15.7	3.5	0.0	19.7	5.3	2.5	25.6	12.2	4.4	26.7	13.5	4.9
15000	17.3	3.6	0.0	22.3	5.8	2.6	29.1	11.8	5.5	30.4	13.7	5.8
20000	19.2	3.6	0.0	23.7	6.2	0.0	31.6	11.7	5.7	33.0	13.4	6.7
25000	20.5	0.0	0.0	25.5	6.2	0.0	33.5	12.0	5.9	35.1	13.5	6.6
30000	21.4	0.0	0.0	27.0	6.3	0.0	34.8	12.5	5.9	36.6	13.8	6.9

UFLR output for CAL6

TARGET	1			2			3			4		
ALTITUDE FEET	DET	CLASS (NMI)	ID	DET	CLASS (NMI)	ID	DET	CLASS (NMI)	ID	DET	CLASS (NMI)	ID
500	8.4	3.1	1.4	9.9	4.8	2.2	12.1	8.0	3.9	12.4	8.5	4.1
1000	9.4	3.2	1.3	11.3	5.1	2.3	13.8	8.8	4.3	14.3	9.5	4.6
1500	10.2	3.3	1.2	12.3	5.3	2.3	15.3	9.4	4.6	15.8	10.1	5.0
2000	10.8	3.3	1.1	13.1	5.4	2.4	16.4	9.8	4.7	16.9	10.6	5.1
2500	11.4	3.3	1.1	13.9	5.5	2.1	17.5	10.2	4.9	18.1	11.1	5.4
3000	12.0	3.4	1.2	14.8	5.6	1.9	18.7	10.6	4.9	19.4	11.6	5.6
3500	12.6	3.2	1.3	15.6	5.6	1.9	19.8	10.9	4.9	20.6	12.0	5.6
4000	13.1	3.1	1.4	16.3	5.7	1.9	20.7	11.1	5.1	21.6	12.3	5.6
5000	13.8	3.0	1.4	17.2	5.8	2.1	22.0	11.5	5.0	23.0	12.7	6.0
7500	15.0	3.2	1.5	18.9	5.3	2.6	24.6	11.9	4.2	25.6	13.4	4.9
10000	16.1	3.5	0.0	20.3	5.3	2.5	26.6	12.3	4.4	27.8	13.7	4.9
15000	18.1	3.6	0.0	23.4	5.8	2.6	30.8	12.0	5.5	32.3	14.0	5.8
20000	20.1	3.7	0.0	25.4	6.2	0.0	34.0	11.9	5.7	35.5	13.7	6.8
25000	21.5	0.0	0.0	26.9	6.3	0.0	36.2	12.1	6.0	37.9	13.7	6.7
30000	22.6	0.0	0.0	28.6	6.4	0.0	37.7	12.6	6.0	39.7	14.1	7.0

UFLR output for CAL7

TARGET	1			2			3			4		
ALTITUDE FEET	DET	CLASS (NMI)	ID	DET	CLASS (NMI)	ID	DET	CLASS (NMI)	ID	DET	CLASS (NMI)	ID
500	7.7	3.0	1.3	9.1	4.6	2.2	10.9	7.4	3.5	11.2	7.8	3.7
1000	8.2	3.1	1.3	9.8	4.8	2.2	11.9	7.9	3.8	12.2	8.4	4.1
1500	9.0	3.2	1.1	10.8	5.0	2.2	13.2	8.5	4.1	13.6	9.1	4.5
2000	9.8	3.2	1.1	11.9	5.2	2.3	14.7	9.2	4.5	15.1	9.8	4.8
2500	10.5	3.3	1.1	12.8	5.3	2.0	15.8	9.6	4.7	16.4	10.4	5.1
3000	11.0	3.3	1.2	13.4	5.4	1.9	16.7	9.9	4.6	17.3	10.8	5.2
3500	11.4	3.2	1.3	13.9	5.4	1.8	17.5	10.2	4.7	18.1	11.1	5.2
4000	11.8	3.1	1.4	14.5	5.5	1.9	18.2	10.4	4.9	18.9	11.4	5.3
5000	12.5	3.0	1.4	15.4	5.6	2.1	19.5	10.8	4.7	20.3	11.9	5.7
7500	13.7	3.1	1.5	17.0	5.2	2.5	21.9	11.3	4.1	22.8	12.6	4.7
10000	14.7	3.5	0.0	18.3	5.2	2.5	23.7	11.8	4.4	24.7	13.0	4.8
15000	16.5	3.6	0.0	20.9	5.7	2.6	27.3	11.5	5.4	28.5	13.2	5.7
20000	18.3	3.6	0.0	22.5	6.1	0.0	29.8	11.5	5.6	31.2	13.0	6.5
25000	19.7	0.0	0.0	24.4	6.2	0.0	31.7	11.8	5.9	33.3	13.2	6.5
30000	20.7	0.0	0.0	26.0	6.3	0.0	33.5	12.4	5.9	35.0	13.7	6.8

UFLR output for CAL8

TARGET	1			2			3			4		
ALTITUDE FEET	DET	CLASS (NMI)	ID	DET	CLASS (NMI)	ID	DET	CLASS (NMI)	ID	DET	CLASS (NMI)	ID
500	8.9	3.1	1.4	10.6	5.0	2.2	13.0	8.4	4.0	13.4	9.0	4.3
1000	9.3	3.2	1.3	11.2	5.0	2.3	13.8	8.7	4.2	14.2	9.4	4.5
1500	10.3	3.3	1.2	12.4	5.3	2.3	15.5	9.4	4.5	16.0	10.2	4.9
2000	11.4	3.3	1.1	14.0	5.5	2.4	17.5	10.1	4.8	18.1	11.1	5.3
2500	12.3	3.4	1.1	15.2	5.6	2.1	19.3	10.7	5.0	20.0	11.7	5.6
3000	13.0	3.4	1.2	16.2	5.7	1.9	20.7	11.1	5.1	21.5	12.2	5.8
3500	13.5	3.3	1.3	16.9	5.7	1.9	21.7	11.3	5.0	22.6	12.6	5.8
4000	13.8	3.1	1.4	17.3	5.7	1.9	22.3	11.4	5.1	23.2	12.7	5.7
5000	14.5	3.1	1.4	18.3	5.9	2.1	23.8	11.7	5.1	24.8	13.0	6.0
7500	16.0	3.2	1.5	20.4	5.4	2.6	26.9	12.2	4.2	28.1	13.8	5.0
10000	17.2	3.5	0.0	22.1	5.3	2.5	29.5	12.6	4.5	30.9	14.1	5.0
15000	19.3	3.6	0.0	25.1	5.8	2.6	34.0	12.3	5.5	35.7	14.5	5.9
20000	21.0	3.7	0.0	27.2	6.3	0.0	37.1	12.1	5.8	39.1	14.0	6.9
25000	23.1	0.0	0.0	29.2	6.3	0.0	40.8	12.4	6.0	42.8	14.1	6.7
30000	24.8	0.0	0.0	31.6	6.4	0.0	43.8	12.9	6.1	46.2	14.4	7.1

APPENDIX 6

UFLR PREDICTED PERFORMANCES FOR DITHERED ATMOSPHERIC PROFILES

file1A: (ten outputs)

TARGET	1			2			3			4		
ALTITUDE FEET	DET	CLASS (NMI)	ID	DET	CLASS (NMI)	ID	DET	CLASS (NMI)	ID	DET	CLASS (NMI)	ID
500	5.5	2.7	1.2	6.4	3.8	1.8	7.4	5.3	2.4	7.6	5.5	2.5
1000	5.7	2.7	1.2	6.5	3.9	1.9	7.6	5.4	2.5	7.8	5.6	2.5
1500	6.6	2.9	1.0	7.8	4.3	2.0	9.2	6.4	3.0	9.4	6.7	3.1
2000	7.8	3.0	1.0	9.2	4.7	2.1	11.1	7.5	3.6	11.4	7.9	3.8
2500	8.8	3.1	1.1	10.5	4.9	1.9	12.8	8.3	4.0	13.2	8.9	4.3
3000	9.6	3.1	1.2	11.5	5.1	1.8	14.1	9.0	4.2	14.6	9.6	4.5
3500	10.2	3.0	1.3	12.4	5.2	1.8	15.3	9.4	4.4	15.8	10.2	4.8
4000	10.7	3.0	1.4	13.1	5.3	1.8	16.3	9.7	4.7	16.9	10.6	5.0
5000	11.6	2.9	1.4	14.3	5.4	2.0	18.0	10.3	4.4	18.7	11.3	5.2
7500	13.4	3.1	1.4	16.8	5.1	2.5	21.6	11.1	4.0	22.4	12.4	4.6
10000	15.2	3.5	0.0	19.0	5.2	2.5	24.9	11.9	4.4	26.0	13.2	4.8
15000	17.7	3.6	0.0	23.1	5.8	2.6	30.7	11.9	5.5	32.1	13.8	5.8
20000	20.3	3.7	0.0	25.9	6.2	0.0	35.1	11.9	5.7	36.9	13.7	6.8
25000	22.4	0.0	0.0	28.2	6.3	0.0	38.9	12.3	6.0	40.9	13.9	6.7
30000	24.1	0.0	0.0	30.7	6.4	0.0	42.0	12.8	6.0	44.2	14.3	7.0

1A2

TARGET	1			2			3			4		
ALTITUDE FEET	DET	CLASS (NMI)	ID	DET	CLASS (NMI)	ID	DET	CLASS (NMI)	ID	DET	CLASS (NMI)	ID
500	4.6	2.5	1.2	5.3	3.4	1.6	6.0	4.4	2.0	6.1	4.5	2.0
1000	4.9	2.5	1.2	5.6	3.5	1.7	6.4	4.6	2.1	6.5	4.7	2.1
1500	5.3	2.6	1.0	6.1	3.7	1.8	7.0	5.0	2.3	7.1	5.2	2.3
2000	5.8	2.7	1.0	6.7	4.0	1.7	7.8	5.6	2.6	8.0	5.8	2.6
2500	6.4	2.8	1.0	7.5	4.2	1.6	8.8	6.2	2.9	9.0	6.4	3.0
3000	7.0	2.8	1.2	8.2	4.4	1.6	9.8	6.8	3.2	10.0	7.1	3.3
3500	7.5	2.8	1.3	8.9	4.6	1.7	10.7	7.3	3.4	11.0	7.7	3.6
4000	8.0	2.8	1.4	9.4	4.7	1.7	11.4	7.6	3.5	11.7	8.1	3.8
5000	8.7	2.8	1.3	10.4	4.7	2.0	12.7	8.2	3.5	13.1	8.8	4.0
7500	10.4	3.0	1.4	12.6	4.7	2.3	15.6	9.4	3.6	16.2	10.2	4.0
10000	11.6	3.4	0.0	14.4	4.9	2.4	18.0	10.1	4.1	18.7	11.3	4.4
15000	14.3	3.5	0.0	17.2	5.6	2.5	22.1	10.4	5.3	23.0	11.8	5.5
20000	16.2	3.6	0.0	19.8	5.9	0.0	25.1	10.8	5.4	26.2	12.2	6.1
25000	17.6	0.0	0.0	21.8	6.1	0.0	27.5	11.3	5.7	28.6	12.6	6.3
30000	18.6	0.0	0.0	23.3	6.1	0.0	29.8	12.0	5.7	31.0	13.2	6.5

1A3

TARGET	1			2			3			4		
ALTITUDE FEET	DET	CLASS (NMI)	ID	DET	CLASS (NMI)	ID	DET	CLASS (NMI)	ID	DET	CLASS (NMI)	ID
500	5.8	2.7	1.2	6.6	3.9	1.9	7.7	5.5	2.5	7.9	5.7	2.6
1000	5.9	2.7	1.2	6.8	4.0	1.9	7.9	5.6	2.6	8.1	5.8	2.6
1500	6.8	2.9	1.1	8.0	4.4	2.0	9.4	6.6	3.1	9.7	6.9	3.2
2000	8.0	3.0	1.0	9.4	4.7	2.1	11.4	7.6	3.7	11.7	8.1	3.8
2500	8.8	3.1	1.1	10.6	5.0	1.9	12.9	8.4	4.0	13.3	9.0	4.3
3000	9.4	3.1	1.2	11.3	5.0	1.8	13.9	8.8	4.1	14.3	9.5	4.4
3500	9.8	3.0	1.3	11.9	5.1	1.8	14.6	9.1	4.3	15.1	9.8	4.6
4000	10.3	2.9	1.4	12.5	5.2	1.8	15.5	9.4	4.5	16.0	10.2	4.8
5000	11.1	2.9	1.4	13.6	5.3	2.0	17.1	10.0	4.2	17.7	10.9	5.0
7500	13.3	3.1	1.4	16.6	5.1	2.5	21.3	11.0	4.0	22.2	12.3	4.6
10000	15.1	3.5	0.0	19.0	5.2	2.5	24.8	11.9	4.3	25.9	13.1	4.8
15000	17.8	3.6	0.0	23.3	5.8	2.6	31.1	11.9	5.5	32.6	13.9	5.8
20000	20.6	3.7	0.0	26.6	6.2	0.0	36.2	12.0	5.7	38.1	13.8	6.8
25000	22.9	0.0	0.0	29.0	6.3	0.0	40.6	12.3	6.0	42.6	14.0	6.7
30000	24.8	0.0	0.0	31.7	6.4	0.0	44.2	12.9	6.0	46.6	14.4	7.0

1A4

TARGET	1			2			3			4		
ALTITUDE FEET	DET	CLASS (NMI)	ID	DET	CLASS (NMI)	ID	DET	CLASS (NMI)	ID	DET	CLASS (NMI)	ID
500	6.1	2.8	1.2	7.0	4.1	1.9	8.3	5.8	2.7	8.4	6.1	2.7
1000	5.9	2.7	1.2	6.9	4.0	1.9	8.0	5.7	2.6	8.2	5.9	2.7
1500	6.2	2.8	1.0	7.1	4.1	1.9	8.4	5.9	2.7	8.6	6.2	2.8
2000	6.8	2.9	1.0	8.0	4.4	1.9	9.5	6.6	3.1	9.7	6.9	3.2
2500	7.6	3.0	1.1	8.9	4.6	1.7	10.7	7.3	3.4	11.0	7.7	3.6
3000	8.3	3.0	1.2	9.9	4.8	1.7	12.0	7.9	3.7	12.3	8.4	3.9
3500	9.0	2.9	1.3	10.8	4.9	1.7	13.1	8.5	4.1	13.6	9.1	4.3
4000	9.6	2.9	1.4	11.5	5.1	1.8	14.2	8.9	4.2	14.7	9.6	4.6
5000	10.6	2.9	1.4	13.0	5.2	2.0	16.2	9.7	4.1	16.7	10.5	4.8
7500	12.6	3.1	1.4	15.6	5.0	2.4	20.0	10.7	3.9	20.7	11.8	4.4
10000	14.4	3.5	0.0	18.0	5.1	2.5	23.5	11.7	4.3	24.5	12.8	4.7
15000	17.3	3.6	0.0	22.6	5.8	2.6	30.0	11.7	5.4	31.4	13.6	5.8
20000	20.2	3.6	0.0	25.9	6.2	0.0	35.3	11.9	5.7	37.2	13.7	6.7
25000	22.7	0.0	0.0	28.6	6.3	0.0	40.0	12.3	6.0	42.1	13.9	6.7
30000	24.7	0.0	0.0	31.5	6.4	0.0	43.9	12.8	6.0	46.4	14.4	7.0

1A5

TARGET	1			2			3			4		
ALTITUDE FEET	DET	CLASS (NMI)	ID	DET	CLASS (NMI)	ID	DET	CLASS (NMI)	ID	DET	CLASS (NMI)	ID
500	5.8	2.7	1.2	6.7	4.0	1.9	7.8	5.6	2.6	8.0	5.3	2.6
1000	6.0	2.8	1.2	6.9	4.0	1.9	8.1	5.8	2.7	8.3	6.0	2.7
1500	6.8	2.9	1.1	7.9	4.3	2.0	9.4	6.5	3.1	9.6	6.3	3.2
2000	7.8	3.0	1.0	9.3	4.7	2.1	11.1	7.5	3.6	11.4	7.9	3.8
2500	8.7	3.1	1.1	10.4	4.9	1.9	12.7	8.3	3.9	13.0	8.3	4.2
3000	9.4	3.1	1.2	11.3	5.0	1.8	13.8	8.8	4.1	14.3	9.5	4.5
3500	9.9	3.0	1.3	12.0	5.1	1.8	14.8	9.2	4.3	15.3	9.9	4.6
4000	10.3	2.9	1.4	12.5	5.2	1.8	15.6	9.5	4.5	16.1	10.2	4.9
5000	11.1	2.9	1.4	13.7	5.3	2.0	17.1	10.0	4.2	17.7	10.9	5.0
7500	12.7	3.1	1.4	15.7	5.0	2.4	20.1	10.7	3.9	20.9	11.9	4.5
10000	14.4	3.5	0.0	18.0	5.2	2.5	23.4	11.7	4.3	24.4	12.8	4.7
15000	17.0	3.6	0.0	21.9	5.7	2.6	29.0	11.6	5.4	30.4	13.5	5.8
20000	19.6	3.6	0.0	24.7	6.2	0.0	33.5	11.7	5.7	35.0	13.5	6.7
25000	21.7	0.0	0.0	27.2	6.3	0.0	37.1	12.1	5.9	39.0	13.7	6.6
30000	23.3	0.0	0.0	29.7	6.4	0.0	40.0	12.7	6.0	42.2	14.2	7.0

1A6

TARGET	1			2			3			4		
ALTITUDE FEET	DET	CLASS (NMI)	ID	DET	CLASS (NMI)	ID	DET	CLASS (NMI)	ID	DET	CLASS (NMI)	ID
500	5.2	2.6	1.2	6.0	3.7	1.8	6.9	5.0	2.3	7.1	5.1	2.3
1000	5.4	2.6	1.2	6.2	3.8	1.8	7.2	5.2	2.4	7.3	5.3	2.4
1500	6.4	2.8	1.0	7.4	4.2	1.9	8.7	6.2	2.9	8.9	6.4	3.0
2000	7.5	3.0	1.0	8.9	4.6	2.1	10.6	7.3	3.5	10.9	7.6	3.6
2500	8.5	3.1	1.1	10.1	4.9	1.8	12.3	8.1	3.8	12.6	8.6	4.1
3000	9.2	3.1	1.2	11.1	5.0	1.8	13.5	8.7	4.1	14.0	9.3	4.4
3500	9.7	3.0	1.3	11.7	5.1	1.8	14.5	9.0	4.3	14.9	9.8	4.6
4000	10.1	2.9	1.4	12.2	5.2	1.8	15.1	9.3	4.4	15.6	10.0	4.8
5000	10.6	2.9	1.4	12.9	5.2	2.0	16.1	9.7	4.1	16.7	10.5	4.8
7500	12.5	3.1	1.4	15.4	5.0	2.4	19.6	10.6	3.9	20.4	11.7	4.4
10000	14.2	3.5	0.0	17.7	5.1	2.5	22.9	11.6	4.3	23.9	12.7	4.7
15000	16.8	3.6	0.0	21.6	5.7	2.6	28.4	11.6	5.4	29.7	13.4	5.7
20000	19.4	3.6	0.0	24.2	6.2	0.0	32.7	11.7	5.6	34.2	13.4	6.6
25000	21.3	0.0	0.0	26.7	6.3	0.0	36.1	12.1	5.9	37.9	13.6	6.6
30000	22.8	0.0	0.0	29.0	6.4	0.0	38.7	12.6	6.0	40.8	14.1	7.0

1A7

TARGET	1			2			3			4		
ALTITUDE FEET	DET	CLASS (NMI)	ID	DET	CLASS (NMI)	ID	DET	CLASS (NMI)	ID	DET	CLASS (NMI)	ID
500	5.3	2.6	1.2	6.1	3.7	1.8	7.1	5.1	2.3	7.2	5.2	2.3
1000	5.7	2.7	1.2	6.6	3.9	1.9	7.6	5.5	2.5	7.8	5.7	2.5
1500	6.4	2.8	1.0	7.4	4.2	1.9	8.7	6.1	2.9	8.9	6.4	2.9
2000	7.2	2.9	1.0	8.4	4.5	2.0	10.0	6.9	3.3	10.3	7.3	3.4
2500	7.9	3.0	1.1	9.4	4.7	1.8	11.3	7.6	3.6	11.6	8.0	3.8
3000	8.6	3.0	1.2	10.3	4.8	1.7	12.5	8.2	3.8	12.8	8.7	4.1
3500	9.2	2.9	1.3	11.0	5.0	1.7	13.5	8.6	4.1	13.9	9.2	4.4
4000	9.7	2.9	1.4	11.7	5.1	1.8	14.4	9.0	4.2	14.9	9.7	4.7
5000	10.5	2.9	1.4	12.9	5.2	2.0	16.0	9.6	4.1	16.6	10.4	4.8
7500	12.4	3.1	1.4	15.4	5.0	2.4	19.6	10.6	3.9	20.3	11.7	4.4
10000	14.1	3.5	0.0	17.6	5.1	2.5	22.7	11.5	4.3	23.7	12.7	4.7
15000	16.7	3.6	0.0	21.5	5.7	2.6	28.3	11.5	5.4	29.6	13.3	5.7
20000	19.4	3.6	0.0	24.3	6.2	0.0	32.9	11.7	5.6	34.4	13.4	6.6
25000	21.5	0.0	0.0	27.0	6.3	0.0	36.7	12.1	5.9	38.5	13.7	6.6
30000	23.1	0.0	0.0	29.4	6.4	0.0	39.6	12.7	6.0	41.8	14.1	7.0

1A8

TARGET	1			2			3			4		
ALTITUDE FEET	DET	CLASS (NMI)	ID	DET	CLASS (NMI)	ID	DET	CLASS (NMI)	ID	DET	CLASS (NMI)	ID
500	4.4	2.4	1.1	4.9	3.2	1.5	5.6	4.1	1.8	5.7	4.2	1.8
1000	4.6	2.5	1.1	5.2	3.4	1.6	5.9	4.3	1.9	6.0	4.4	1.9
1500	5.0	2.6	1.0	5.7	3.6	1.7	6.6	4.7	2.1	6.7	4.9	2.2
2000	5.7	2.7	1.0	6.6	3.9	1.7	7.6	5.5	2.5	7.8	5.6	2.6
2500	6.3	2.8	1.0	7.3	4.2	1.6	8.6	6.1	2.9	8.8	6.3	2.9
3000	6.8	2.8	1.2	8.0	4.3	1.6	9.5	6.6	3.1	9.8	6.9	3.2
3500	7.3	2.7	1.3	8.6	4.5	1.6	10.3	7.0	3.3	10.5	7.4	3.5
4000	7.7	2.7	1.3	9.1	4.7	1.7	10.9	7.4	3.4	11.2	7.8	3.7
5000	8.5	2.8	1.3	10.1	4.7	1.9	12.2	8.0	3.4	12.6	8.6	3.9
7500	10.3	3.0	1.4	12.5	4.7	2.3	15.4	9.4	3.6	16.0	10.1	4.0
10000	11.6	3.4	0.0	14.4	4.9	2.4	18.0	10.1	4.1	18.7	11.3	4.4
15000	14.4	3.5	0.0	17.3	5.6	2.5	22.4	10.5	5.3	23.4	11.9	5.5
20000	16.4	3.6	0.0	20.1	5.9	0.0	25.7	10.9	5.4	26.8	12.3	6.1
25000	18.0	0.0	0.0	22.3	6.1	0.0	28.3	11.4	5.7	29.5	12.7	6.3
30000	19.1	0.0	0.0	24.0	6.2	0.0	30.8	12.1	5.8	32.0	13.3	6.6

1A9

TARGET	1			2			3			4		
ALTITUDE FEET	DET	CLASS (NMI)	ID	DET	CLASS (NMI)	ID	DET	CLASS (NMI)	ID	DET	CLASS (NMI)	ID
500	5.4	2 7	1.2	6.2	3.8	1.8	7.2	5.2	2.4	7.3	5.3	2.4
1000	5.6	2 7	1.2	6.5	3.9	1.9	7.5	5.4	2.5	7.7	5.6	2.5
1500	6.4	2 8	1.0	7.4	4.2	1.9	8.7	6.2	2.9	8.9	6.4	2.9
2000	7.3	2 9	1.0	8.6	4.5	2.0	10.3	7.1	3.4	10.6	7.4	3.5
2500	8.1	3 1	1.1	9.7	4.8	1.8	11.7	7.8	3.7	12.0	8.3	3.9
3000	8.8	3.1	1.2	10.5	4.9	1.7	12.9	8.4	3.9	13.2	8.9	4.2
3500	9.4	3.0	1.3	11.2	5.0	1.8	13.8	8.8	4.2	14.2	9.4	4.5
4000	9.8	2.9	1.4	11.8	5.1	1.8	14.6	9.1	4.3	15.0	9.8	4.7
5000	10.4	2.9	1.4	12.7	5.2	2.0	15.8	9.6	4.0	16.4	10.4	4.7
7500	12.4	3.1	1.4	15.3	5.0	2.4	19.4	10.6	3.9	20.2	11.7	4.4
10000	13.9	3.5	0.0	17.3	5.1	2.5	22.3	11.4	4.3	23.3	12.6	4.6
15000	16.5	3.6	0.0	21.1	5.7	2.6	27.6	11.4	5.4	28.9	13.2	5.7
20000	19.0	3.6	0.0	23.6	6.1	0.0	31.9	11.6	5.6	33.4	13.3	6.6
25000	21.0	0.0	0.0	26.3	6.2	0.0	35.3	12.0	5.9	37.0	13.5	6.6
30000	22 5	0.0	0.0	28.5	6.3	0.0	37.9	12.6	5.9	39.9	14.0	6.9

1A10

TARGET	1			2			3			4		
ALTITUDE FEET	DET	CLASS (NMI)	ID	DET	CLASS (NMI)	ID	DET	CLASS (NMI)	ID	DET	CLASS (NMI)	ID
500	5.3	2.6	1.2	6.0	3.7	1.8	7.0	5.0	2.3	7.1	5.2	2.3
1000	5.5	2.7	1.2	6.4	3.8	1.8	7.4	5.3	2.4	7.5	5.5	2.4
1500	6.4	2.8	1.0	7.4	4.2	1.9	8.7	6.2	2.9	9.0	6.4	2.9
2000	7.4	2.9	1.0	8.7	4.6	2.0	10.4	7.2	3.4	10.7	7.5	3.5
2500	8.3	3.1	1.1	9.9	4.8	1.8	12.0	8.0	3.7	12.3	8.5	4.0
3000	9.1	3.1	1.2	10.9	5.0	1.8	13.4	8.6	4.0	13.8	9.2	4.3
3500	9.8	3.0	1.3	11.8	5.1	1.8	14.5	9.1	4.3	15.0	9.8	4.6
4000	10.2	2.9	1.4	12.4	5.2	1.8	15.4	9.4	4.5	15.9	10.2	4.8
5000	11.0	2.9	1.4	13.5	5.3	2.0	16.9	9.9	4.2	17.5	10.8	5.0
7500	12.8	3.1	1.4	16.0	5.1	2.4	20.4	10.8	3.9	21.2	12.0	4.5
10000	14.7	3.5	0.0	18.4	5.2	2.5	24.0	11.8	4.3	25.0	13.0	4.7
15000	17.4	3.6	0.0	22.7	5.8	2.6	30.2	11.8	5.4	31.6	13.7	5.8
20000	20.2	3.6	0.0	25.9	6.2	0.0	35.2	11.9	5.7	36.9	13.7	6.7
25000	22.5	0.0	0.0	28.4	6.3	0.0	39.4	12.3	6.0	41.5	13.9	6.7
30000	24.4	0.0	0.0	31.1	6.4	0.0	43.0	12.8	6.0	45.3	14.3	7.0

file2A: (ten outputs)

TARGET	1			2			3			4		
ALTITUDE FEET	DET	CLASS (NMI)	ID	DET	CLASS (NMI)	ID	DET	CLASS (NMI)	ID	DET	CLASS (NMI)	ID
500	7.3	3.0	1.3	8.6	4.5	2.1	10.2	7.0	3.3	10.5	7.4	3.5
1000	7.7	3.0	1.3	9.1	4.7	2.2	10.9	7.4	3.6	11.3	7.8	3.7
1500	8.7	3.2	1.1	10.5	5.0	2.2	12.7	8.3	4.0	13.1	8.9	4.3
2000	9.9	3.2	1.1	11.9	5.2	2.4	14.7	9.2	4.5	15.2	9.9	4.8
2500	10.8	3.3	1.1	13.2	5.4	2.0	16.4	9.8	4.7	16.9	10.7	5.2
3000	11.5	3.4	1.2	14.1	5.5	1.9	17.7	10.3	4.8	18.3	11.2	5.5
3500	12.1	3.2	1.3	14.9	5.5	1.9	18.8	10.6	4.8	19.5	11.6	5.4
4000	12.5	3.1	1.4	15.5	5.6	1.9	19.6	10.8	5.0	20.3	11.9	5.5
5000	13.2	3.0	1.4	16.3	5.8	2.1	20.8	11.2	4.8	21.6	12.3	5.9
7500	14.4	3.2	1.5	18.1	5.3	2.5	23.3	11.6	4.1	24.3	13.0	4.8
10000	15.5	3.5	0.0	19.5	5.3	2.5	25.4	12.1	4.4	26.5	13.4	4.8
15000	17.3	3.6	0.0	22.3	5.8	2.6	29.3	11.8	5.5	30.7	13.7	5.8
20000	19.5	3.6	0.0	24.4	6.2	0.0	32.6	11.8	5.7	34.1	13.5	6.7
25000	21.1	0.0	0.0	26.3	6.3	0.0	35.1	12.1	5.9	36.8	13.6	6.6
30000	22.2	0.0	0.0	28.1	6.3	0.0	36.8	12.6	6.0	38.7	14.0	6.9

2A2

TARGET	1			2			3			4		
ALTITUDE FEET	DET	CLASS (NMI)	ID	DET	CLASS (NMI)	ID	DET	CLASS (NMI)	ID	DET	CLASS (NMI)	ID
500	7.4	3.0	1.3	8.7	4.6	2.1	10.4	7.1	3.4	10.7	7.5	3.6
1000	8.2	3.1	1.3	9.7	4.8	2.2	11.7	7.8	3.8	12.1	8.3	4.0
1500	8.7	3.1	1.1	10.4	4.9	2.2	12.7	8.3	4.0	13.1	8.8	4.3
2000	9.1	3.1	1.0	10.9	5.0	2.3	13.4	8.6	4.2	13.8	9.2	4.5
2500	9.5	3.2	1.1	11.5	5.1	1.9	14.2	8.9	4.3	14.7	9.6	4.7
3000	10.2	3.2	1.2	12.4	5.3	1.8	15.4	9.4	4.4	15.9	10.2	4.9
3500	10.7	3.1	1.3	13.1	5.3	1.8	16.4	9.8	4.5	16.9	10.6	5.0
4000	11.1	3.0	1.4	13.6	5.4	1.9	17.0	10.0	4.8	17.6	10.9	5.1
5000	11.7	3.0	1.4	14.4	5.5	2.0	18.2	10.4	4.5	18.9	11.4	5.4
7500	13.3	3.1	1.5	16.5	5.1	2.5	21.2	11.1	4.0	22.1	12.3	4.6
10000	14.5	3.5	0.0	18.0	5.2	2.5	23.3	11.7	4.3	24.3	12.9	4.7
15000	16.6	3.6	0.0	21.0	5.7	2.6	27.4	11.5	5.4	28.7	13.3	5.7
20000	18.7	3.6	0.0	23.0	6.1	0.0	30.8	11.5	5.6	32.2	13.2	6.6
25000	20.3	0.0	0.0	25.2	6.2	0.0	33.2	11.9	5.9	34.8	13.4	6.6
30000	21.4	0.0	0.0	27.0	6.3	0.0	35.0	12.5	5.9	36.8	13.8	6.9

2A3

TARGET	1			2			3			4		
ALTITUDE FEET	DET	CLASS (NMI)	ID	DET	CLASS (NMI)	ID	DET	CLASS (NMI)	ID	DET	CLASS (NMI)	ID
500	7.8	3.0	1.3	9.3	4.7	2.2	11.2	7.5	3.6	11.5	8.0	3.8
1000	8.7	3.1	1.3	10.4	4.9	2.3	12.7	8.3	4.0	13.1	8.8	4.3
1500	9.8	3.2	1.2	11.9	5.2	2.3	14.6	9.1	4.4	15.1	9.8	4.8
2000	10.9	3.3	1.1	13.3	5.4	2.4	16.6	9.9	4.7	17.2	10.7	5.2
2500	11.7	3.3	1.1	14.4	5.5	2.1	18.1	10.4	4.9	18.7	11.4	5.5
3000	12.1	3.4	1.2	14.9	5.6	1.9	18.8	10.6	4.9	19.5	11.6	5.6
3500	12.3	3.2	1.3	15.2	5.6	1.9	19.3	10.7	4.8	20.0	11.8	5.5
4000	12.6	3.1	1.4	15.6	5.6	1.9	19.9	10.8	5.0	20.7	12.0	5.5
5000	13.1	3.0	1.4	16.3	5.7	2.1	20.9	11.1	4.8	21.7	12.2	5.9
7500	14.8	3.2	1.5	18.7	5.3	2.5	24.3	11.8	4.2	25.3	13.2	4.9
10000	16.0	3.5	0.0	20.2	5.3	2.5	26.5	12.2	4.4	27.7	13.6	4.9
15000	18.0	3.6	0.0	23.3	5.8	2.6	30.9	12.0	5.5	32.4	14.0	5.8
20000	20.2	3.7	0.0	25.7	6.2	0.0	34.6	11.9	5.7	36.2	13.7	6.8
25000	22.0	0.0	0.0	27.6	6.3	0.0	37.6	12.2	6.0	39.4	13.8	6.7
30000	23.4	0.0	0.0	29.7	6.4	0.0	39.8	12.7	6.0	41.9	14.2	7.0

2A4

TARGET	1			2			3			4		
ALTITUDE FEET	DET	CLASS (NMI)	ID	DET	CLASS (NMI)	ID	DET	CLASS (NMI)	ID	DET	CLASS (NMI)	ID
500	8.5	3.1	1.4	10.1	4.8	2.2	12.3	8.0	3.8	12.6	8.6	4.1
1000	9.0	3.2	1.3	10.7	5.0	2.3	13.2	8.5	4.1	13.6	9.1	4.4
1500	9.5	3.2	1.2	11.5	5.1	2.2	14.1	8.9	4.2	14.6	9.5	4.6
2000	10.0	3.2	1.1	12.1	5.2	2.3	15.0	9.2	4.4	15.6	10.0	4.8
2500	10.7	3.3	1.1	13.0	5.3	2.0	16.3	9.7	4.6	16.9	10.6	5.0
3000	11.5	3.3	1.2	14.1	5.5	1.9	17.8	10.2	4.7	18.5	11.2	5.3
3500	12.2	3.2	1.3	15.1	5.5	1.9	19.2	10.7	4.8	20.0	11.7	5.4
4000	12.8	3.1	1.4	15.9	5.6	1.9	20.3	10.9	5.0	21.1	12.1	5.5
5000	13.8	3.0	1.4	17.3	5.8	2.1	22.4	11.5	4.9	23.3	12.7	5.9
7500	15.5	3.2	1.5	19.8	5.3	2.6	25.9	12.0	4.2	27.1	13.6	4.9
10000	16.9	3.5	0.0	21.6	5.3	2.5	28.8	12.5	4.5	30.1	14.0	4.9
15000	19.6	3.6	0.0	25.6	5.8	2.6	34.9	12.4	5.5	36.7	14.6	5.9
20000	21.9	3.7	0.0	29.0	6.3	0.0	40.0	12.3	5.8	42.2	14.3	7.0
25000	24.3	0.0	0.0	31.5	6.4	0.0	44.1	12.5	6.1	46.7	14.3	6.8
30000	26.2	0.0	0.0	33.5	6.5	0.0	47.8	13.0	6.1	50.4	14.7	7.1

2A5

TARGET	1			2			3			4		
ALTITUDE FEET	DET	CLASS (NMI)	ID	DET	CLASS (NMI)	ID	DET	CLASS (NMI)	ID	DET	CLASS (NMI)	ID
500	8.1	3.1	1.4	9.6	4.8	2.2	11.6	7.8	3.8	12.0	8.2	4.0
1000	9.1	3.2	1.3	10.9	5.0	2.3	13.3	8.6	4.2	13.7	9.2	4.5
1500	10.1	3.3	1.2	12.2	5.3	2.3	15.1	9.3	4.5	15.6	10.0	4.9
2000	11.0	3.3	1.1	13.5	5.4	2.4	16.8	9.9	4.8	17.4	10.8	5.2
2500	11.8	3.3	1.1	14.5	5.6	2.1	18.2	10.4	5.0	18.9	11.4	5.5
3000	12.3	3.4	1.2	15.2	5.7	1.9	19.2	10.8	5.0	20.0	11.8	5.7
3500	12.7	3.2	1.3	15.7	5.6	1.9	19.9	10.9	4.9	20.7	12.0	5.6
4000	12.9	3.1	1.4	16.0	5.6	1.9	20.4	11.0	5.0	21.2	12.2	5.6
5000	13.3	3.0	1.4	16.5	5.8	2.1	21.2	11.2	4.9	22.0	12.4	5.9
7500	14.1	3.2	1.5	17.7	5.2	2.5	22.9	11.5	4.1	23.9	12.8	4.8
10000	15.4	3.5	0.0	19.2	5.2	2.5	25.1	12.0	4.4	26.2	13.3	4.8
15000	17.1	3.6	0.0	22.0	5.8	2.6	28.9	11.7	5.5	30.2	13.6	5.8
20000	19.3	3.6	0.0	24.0	6.2	0.0	32.2	11.7	5.7	33.6	13.4	6.7
25000	20.9	0.0	0.0	26.0	6.3	0.0	34.6	12.0	5.9	36.3	13.6	6.6
30000	22.0	0.0	0.0	27.8	6.3	0.0	36.3	12.5	5.9	38.2	13.9	6.9

2A6

TARGET	1			2			3			4		
ALTITUDE FEET	DET	CLASS (NMI)	ID	DET	CLASS (NMI)	ID	DET	CLASS (NMI)	ID	DET	CLASS (NMI)	ID
500	7.3	3.0	1.3	8.5	4.5	2.1	10.2	7.0	3.3	10.5	7.4	3.5
1000	7.9	3.1	1.3	9.3	4.7	2.2	11.2	7.5	3.7	11.6	8.0	3.8
1500	9.0	3.2	1.1	10.8	5.0	2.2	13.2	8.5	4.1	13.6	9.1	4.5
2000	10.2	3.2	1.1	12.3	5.3	2.4	15.2	9.4	4.6	15.7	10.1	4.9
2500	11.2	3.3	1.1	13.6	5.5	2.1	17.0	10.0	4.8	17.6	11.0	5.3
3000	11.9	3.4	1.2	14.6	5.6	1.9	18.3	10.5	4.9	19.0	11.5	5.6
3500	12.2	3.2	1.3	15.1	5.6	1.9	19.1	10.7	4.9	19.8	11.7	5.5
4000	12.3	3.1	1.4	15.2	5.5	1.9	19.2	10.7	5.0	20.0	11.8	5.4
5000	12.5	3.0	1.4	15.4	5.6	2.1	19.6	10.8	4.7	20.4	11.9	5.7
7500	13.9	3.2	1.5	17.4	5.2	2.5	22.4	11.4	4.1	23.3	12.7	4.7
10000	15.3	3.5	0.0	19.1	5.2	2.5	24.9	12.0	4.4	26.0	13.3	4.8
15000	17.2	3.6	0.0	22.1	5.8	2.6	29.0	11.7	5.5	30.3	13.6	5.8
20000	19.4	3.6	0.0	24.1	6.2	0.0	32.3	11.7	5.7	33.8	13.4	6.7
25000	20.9	0.0	0.0	26.1	6.3	0.0	34.8	12.0	5.9	36.4	13.6	6.6
30000	22.1	0.0	0.0	27.9	6.3	0.0	36.5	12.6	5.9	38.4	14.0	6.9

2A7

TARGET	1			2			3			4		
ALTITUDE FEET	DET	CLASS (NMI)	ID	DET	CLASS (NMI)	ID	DET	CLASS (NMI)	ID	DET	CLASS (NMI)	ID
500	7.0	2.9	1.3	8.2	4.4	2.1	9.7	6.7	3.2	10.0	7.1	3.3
1000	7.9	3.1	1.3	9.4	4.7	2.2	11.3	7.6	3.7	11.6	8.0	3.9
1500	8.6	3.1	1.1	10.3	4.9	2.2	12.5	8.2	4.0	12.9	8.7	4.3
2000	9.2	3.2	1.1	11.0	5.1	2.3	13.5	8.7	4.2	14.0	9.3	4.6
2500	9.8	3.2	1.1	11.8	5.2	2.0	14.5	9.1	4.4	15.0	9.8	4.8
3000	10.4	3.2	1.2	12.6	5.3	1.8	15.6	9.5	4.5	16.1	10.3	5.0
3500	10.8	3.1	1.3	13.2	5.3	1.8	16.4	9.8	4.6	17.0	10.7	5.0
4000	11.2	3.0	1.4	13.6	5.4	1.9	17.1	10.0	4.8	17.7	10.9	5.2
5000	11.7	3.0	1.4	14.4	5.5	2.0	18.1	10.4	4.5	18.8	11.4	5.4
7500	13.1	3.1	1.5	16.1	5.1	2.5	20.6	10.9	4.0	21.4	12.1	4.6
10000	14.0	3.5	0.0	17.4	5.1	2.5	22.3	11.5	4.3	23.2	12.7	4.7
15000	15.9	3.6	0.0	19.9	5.7	2.6	25.8	11.2	5.4	26.8	12.9	5.7
20000	17.8	3.6	0.0	21.9	6.1	0.0	28.6	11.3	5.5	29.9	12.9	6.4
25000	19.2	0.0	0.0	23.8	6.2	0.0	30.6	11.7	5.8	32.1	13.1	6.5
30000	20.1	0.0	0.0	25.3	6.2	0.0	32.4	12.3	5.8	33.7	13.6	6.7

2A8

TARGET	1			2			3			4		
ALTITUDE FEET	DET	CLASS (NMI)	ID	DET	CLASS (NMI)	ID	DET	CLASS (NMI)	ID	DET	CLASS (NMI)	ID
500	6.7	2.9	1.3	7.8	4.3	2.1	9.3	6.5	3.1	9.5	6.8	3.2
1000	7.4	3.0	1.3	8.7	4.6	2.1	10.4	7.1	3.4	10.6	7.5	3.5
1500	8.0	3.1	1.1	9.5	4.8	2.1	11.5	7.7	3.7	11.8	8.1	3.9
2000	8.6	3.1	1.0	10.3	4.9	2.3	12.6	8.2	4.0	12.9	8.8	4.2
2500	9.2	3.2	1.1	11.1	5.1	1.9	13.6	8.7	4.2	14.0	9.3	4.5
3000	9.7	3.2	1.2	11.7	5.1	1.8	14.5	9.1	4.2	15.0	9.8	4.7
3500	10.1	3.0	1.3	12.3	5.2	1.8	15.2	9.3	4.4	15.8	10.1	4.8
4000	10.4	3.0	1.4	12.7	5.3	1.8	15.8	9.5	4.6	16.3	10.3	4.9
5000	11.1	2.9	1.4	13.6	5.3	2.0	17.1	10.0	4.3	17.7	10.9	5.1
7500	12.9	3.1	1.4	16.0	5.1	2.5	20.4	10.9	4.0	21.2	12.0	4.6
10000	14.2	3.5	0.0	17.6	5.1	2.5	22.7	11.6	4.3	23.7	12.7	4.7
15000	16.3	3.6	0.0	20.6	5.7	2.6	26.8	11.4	5.4	28.0	13.1	5.7
20000	18.4	3.6	0.0	22.7	6.1	0.0	30.2	11.5	5.6	31.5	13.1	6.5
25000	20.0	0.0	0.0	24.9	6.2	0.0	32.6	11.9	5.9	34.2	13.3	6.5
30000	21.1	0.0	0.0	26.6	6.3	0.0	34.3	12.4	5.9	36.1	13.8	6.8

2A9

TARGET	1			2			3			4		
ALTITUDE FEET	DET	CLASS (NMI)	ID	DET	CLASS (NMI)	ID	DET	CLASS (NMI)	ID	DET	CLASS (NMI)	ID
500	7.8	3.0	1.4	9.2	4.7	2.2	11.1	7.5	3.6	11.4	7.9	3.8
1000	8.7	3.2	1.3	10.4	4.9	2.3	12.7	8.3	4.0	13.1	8.8	4.3
1500	9.6	3.2	1.2	11.6	5.2	2.2	14.2	9.0	4.4	14.7	9.6	4.7
2000	10.5	3.3	1.1	12.7	5.3	2.4	15.8	9.6	4.6	16.3	10.4	5.0
2500	11.2	3.3	1.1	13.7	5.5	2.1	17.1	10.0	4.8	17.7	11.0	5.3
3000	11.8	3.4	1.2	14.5	5.6	1.9	18.2	10.4	4.8	18.9	11.4	5.5
3500	12.2	3.2	1.3	15.0	5.5	1.9	19.0	10.7	4.8	19.7	11.7	5.4
4000	12.4	3.1	1.4	15.3	5.6	1.9	19.4	10.7	5.0	20.2	11.8	5.4
5000	12.7	3.0	1.4	15.7	5.7	2.1	20.1	10.9	4.7	20.8	12.0	5.8
7500	14.2	3.2	1.5	17.8	5.2	2.5	22.9	11.5	4.1	23.9	12.9	4.8
10000	15.2	3.5	0.0	18.9	5.2	2.5	24.7	12.0	4.4	25.8	13.2	4.8
15000	17.0	3.6	0.0	21.8	5.8	2.6	28.6	11.7	5.5	30.0	13.5	5.8
20000	19.2	3.6	0.0	23.8	6.2	0.0	31.9	11.7	5.7	33.4	13.4	6.6
25000	20.8	0.0	0.0	25.9	6.3	0.0	34.3	12.0	5.9	36.0	13.5	6.6
30000	21.9	0.0	0.0	27.6	6.3	0.0	36.0	12.5	5.9	37.9	13.9	6.9

2A10

TARGET	1			2			3			4		
ALTITUDE FEET	DET	CLASS (NMI)	ID	DET	CLASS (NMI)	ID	DET	CLASS (NMI)	ID	DET	CLASS (NMI)	ID
500	7.2	3.0	1.3	8.4	4.5	2.1	10.0	6.9	3.3	10.3	7.3	3.4
1000	8.1	3.1	1.3	9.5	4.8	2.2	11.5	7.7	3.7	11.8	8.2	3.9
1500	9.0	3.2	1.1	10.8	5.0	2.2	13.2	8.5	4.1	13.6	9.1	4.4
2000	10.0	3.2	1.1	12.0	5.2	2.4	14.9	9.2	4.5	15.4	10.0	4.8
2500	10.8	3.3	1.1	13.2	5.4	2.0	16.4	9.8	4.7	17.0	10.7	5.2
3000	11.6	3.3	1.2	14.2	5.5	1.9	17.8	10.3	4.8	18.5	11.3	5.5
3500	12.2	3.2	1.3	15.0	5.5	1.9	18.9	10.7	4.8	19.6	11.7	5.4
4000	12.4	3.1	1.4	15.4	5.6	1.9	19.5	10.7	5.0	20.2	11.9	5.4
5000	12.9	3.0	1.4	16.0	5.7	2.1	20.5	11.0	4.8	21.3	12.1	5.8
7500	14.1	3.2	1.5	17.8	5.2	2.5	23.0	11.5	4.1	23.9	12.8	4.8
10000	15.4	3.5	0.0	19.4	5.2	2.5	25.3	12.1	4.4	26.5	13.4	4.8
15000	17.4	3.6	0.0	22.5	5.8	2.6	29.7	11.8	5.5	31.1	13.7	5.8
20000	19.7	3.6	0.0	24.8	6.2	0.0	33.3	11.8	5.7	34.8	13.6	6.7
25000	21.4	0.0	0.0	26.8	6.3	0.0	36.1	12.1	6.0	37.9	13.7	6.6
30000	22.7	0.0	0.0	28.8	6.4	0.0	38.1	12.6	6.0	40.1	14.1	7.0

APPENDIX 7

COMPUTER PROGRAM UFLRPLT

```
C     PROGRAM UFLRPLT
      IMPLICIT INTEGER*2 (I-N)
      DIMENSION X(150),R1(150),R2(150),R3(150),RA(12,150)
      CHARACTER*80 TITLE$,BLANK$,BUF$,FILN$*20
      BLANK$='                                       '
    1 WRITE(*,*)'IMPUT FILE NAME AND TYPE'
      WRITE(*,*)'A NULL IMPUT EXITS THE PROGRAM'
      READ(*,'(A20)')FILN$
      OPEN(2,FILE=FILN$,STATUS='OLD',ERR=3)
      DO 2 I=1,100
        IF(I .EQ. 100)WRITE(*,*)' OPEN WAS SUCCESSFUL '
    2 CONTINUE
      I = 1
      READ(2,'(A80)')TITLE$
    7 READ(2,'(A80)',END=6)BUF$
        IF (BUF$(6:7) .EQ. '00' .AND. I .LE. 150)THEN
          READ(BUF$,'(F7.0,4(F7.1,2F5.1))')X(I),(RA(J,I),J=1,12)
          I=I+1
        ENDIF
      IF(I .EQ. 150)GO TO 6
      GO TO 7
    6 DO 20 I=1,12,3
         DO 15 J=1,150
            R1(J)=RA(I,J)
            R2(J)=RA(I+1,J)
            R3(J)=RA(I+2,J)
   15    CONTINUE
         I1 = (I-1)/3 +1
         CALL PLOTIT(R1,R2,R3,X,I1)
   20 CONTINUE
      GO TO 4
    3 CONTINUE
      WRITE(*,'('' CAN NOT FIND '',A20)')FILN$
      GO TO 1
    4 CALL DONEPL
      STOP
      END
C
      SUBROUTINE PLOTIT(X1,X2,X3,Y,I1)
      IMPLICIT INTEGER*2 (I-N)
      DIMENSION X1(150),X2(150),X3(150),Y(15),X11(15),X22(15),X33(15),
     *RA(12,150)
      CHARACTER CH$*17
      CALL COMPRS
      CALL PAGE(11.,8.5)
      CALL AREA2D(7.,5.5)
      WRITE(CH$,'(''TARGET NUMBER '', I2,''$'')')I1
      CALL HEADIN(CH$,100,1.5,1)
      CALL YNAME('ELEVATION (FEET)$',100)
      CALL XNAME('RANGE (NMI)$',100)
      CALL YAXANG(0)
      CALL XTICKS(2)
      CALL YTICKS(6)
      CALL GRAF(0.,4.,48.,0.,6000.,30000.)
      CALL DOT
      CALL GRID(1,1)
      CALL RESET('DOT')
      DO 32 I=1,150,15
        DO 31 J=1,15
           X11(J) = X1(I+J-1)
           X22(J) = X2(I+J-1)
           X33(J) = X3(I+J-1)
   31   CONTINUE
        CALL DOT
        CALL CURVE(X11,Y,15,0)
        CALL DASH
        CALL CURVE(X22,Y,15,0)
        CALL CURVE(X33,Y,15,0)
   32 CONTINUE
      CALL ENDPL(0)
      RETURN
      END
```

APPENDIX 8

SELECTED PERFORMANCE DATA FOR HEIGHT LEVELS TESTED

FLIGHT ALTITUDE: 1,500 FT.   COMBINATION: A

SIGMAP = 2.5 SIGMAT = 1.0 SIGMARH = 8.0

TARGET #1 DET	TARGET #1 CLASS (NMI)	TARGET #1 ID	TARGET #2 DET	TARGET #2 CLASS (NMI)	TARGET #2 ID	TARGET #3 DET	TARGET #3 CLASS (NMI)	TARGET #3 ID	TARGET #4 DET	TARGET #4 CLASS (NMI)	TARGET #4 ID
6.6	2.9	1.0	7.8	4.3	2.0	9.2	6.4	3.0	9.4	6.7	3.1
5.3	2.6	1.0	6.1	3.7	1.8	7.0	5.0	2.3	7.1	5.2	2.3
6.8	2.9	1.1	8.0	4.4	2.0	9.4	6.6	3.1	9.7	6.9	3.2
6.2	2.8	1.0	7.1	4.1	1.9	8.4	5.9	2.7	8.6	6.2	2.8
6.8	2.9	1.1	7.9	4.3	2.0	9.4	6.5	3.1	9.6	6.8	3.2
6.4	2.8	1.0	7.4	4.2	1.9	8.7	6.2	2.9	8.9	6.4	3.0
6.4	2.8	1.0	7.4	4.2	1.9	8.7	6.1	2.9	8.9	6.4	2.9
5.0	2.6	1.0	5.7	3.6	1.7	6.6	4.7	2.1	6.7	4.9	2.2
6.4	2.8	1.0	7.4	4.2	1.9	8.7	6.2	2.9	8.9	6.4	2.9
6.4	2.8	1.0	7.4	4.2	1.9	8.7	6.2	2.9	9.0	6.4	2.9
8.7	3.2	1.1	10.5	5.0	2.2	12.7	8.3	4.0	13.1	8.9	4.3
8.7	3.1	1.1	10.4	4.9	2.2	12.7	8.3	4.0	13.1	8.8	4.3
9.8	3.2	1.2	11.9	5.2	2.3	14.6	9.1	4.4	15.1	9.8	4.8
9.5	3.2	1.2	11.5	5.1	2.2	14.1	8.9	4.2	14.6	9.5	4.6
10.1	3.3	1.2	12.2	5.3	2.3	15.1	9.3	4.5	15.6	10.0	4.9
9.0	3.2	1.1	10.8	5.0	2.2	13.2	8.5	4.1	13.6	9.1	4.5
8.6	3.1	1.1	10.3	4.9	2.2	12.5	8.2	4.0	12.9	8.7	4.3
8.0	3.1	1.1	9.5	4.8	2.1	11.5	7.7	3.7	11.8	8.1	3.9
9.6	3.2	1.2	11.6	5.2	2.2	14.2	9.0	4.4	14.7	9.6	4.7
9.0	3.2	1.1	10.8	5.0	2.2	13.2	8.5	4.1	13.6	9.1	4.4
6.5	2.9	1.0	7.6	4.3	1.9	9.0	6.3	3.0	9.2	6.6	3.0
6.0	2.8	1.0	6.9	4.0	1.9	8.1	5.8	2.7	8.3	6.0	2.7
7.1	2.9	1.1	8.4	4.5	2.0	10.0	6.9	3.3	10.2	7.2	3.4
6.7	2.9	1.0	7.9	4.3	2.0	9.3	6.5	3.0	9.5	6.8	3.1
6.9	2.9	1.1	8.1	4.4	2.0	9.6	6.7	3.2	9.9	7.0	3.3
6.2	2.8	1.0	7.2	4.1	1.9	8.4	6.0	2.8	8.6	6.2	2.9
6.5	2.9	1.0	7.6	4.3	1.9	9.0	6.3	3.0	9.2	6.6	3.1
5.5	2.7	1.0	6.3	3.8	1.8	7.3	5.2	2.4	7.4	5.4	2.4
6.5	2.9	1.0	7.6	4.3	1.9	9.0	6.3	3.0	9.2	6.6	3.1
6.7	2.9	1.0	7.8	4.3	2.0	9.2	6.5	3.0	9.5	6.8	3.1
9.5	3.2	1.2	11.4	5.1	2.2	13.9	8.9	4.3	14.3	9.5	4.7
8.1	3.1	1.1	9.6	4.8	2.1	11.7	7.8	3.7	12.0	8.2	4.0
9.6	3.2	1.2	11.6	5.2	2.2	14.3	9.0	4.4	14.7	9.6	4.7
9.0	3.2	1.1	10.9	5.0	2.2	13.3	8.5	4.1	13.7	9.1	4.4
9.5	3.2	1.2	11.4	5.1	2.2	13.9	8.9	4.3	14.4	9.5	4.7
9.1	3.2	1.2	10.9	5.0	2.2	13.3	8.6	4.2	13.7	9.2	4.5
8.3	3.1	1.1	9.9	4.9	2.2	12.0	8.0	3.9	12.4	8.5	4.1
7.6	3.0	1.1	9.0	4.6	2.1	10.8	7.3	3.5	11.1	7.7	3.7
9.1	3.2	1.2	11.0	5.1	2.2	13.4	8.6	4.2	13.8	9.2	4.5
8.9	3.2	1.1	10.7	5.0	2.2	13.0	8.5	4.1	13.4	9.0	4.4
10.6	3.3	1.2	12.8	5.4	2.3	15.8	9.6	4.7	16.4	10.4	5.1
11.2	3.4	1.2	13.7	5.5	2.3	17.0	10.0	4.8	17.8	10.9	5.9
11.8	3.4	1.2	14.4	5.6	2.4	18.0	10.4	5.0	18.7	11.4	5.5
11.4	3.4	1.2	13.9	5.5	2.3	17.4	10.1	4.8	18.0	11.0	5.4
13.0	3.5	1.2	16.0	5.7	2.4	20.1	11.0	5.3	20.8	12.2	5.8
10.8	3.3	1.2	13.1	5.4	2.3	16.2	9.7	4.7	16.8	10.6	5.2
11.1	3.4	1.2	13.5	5.5	2.3	16.7	9.9	4.8	17.3	10.8	5.3
9.9	3.3	1.2	11.9	5.2	2.3	14.7	9.2	4.5	15.2	9.9	4.8
12.1	3.4	1.2	14.9	5.6	2.4	18.7	10.6	5.1	19.4	11.6	5.6
10.7	3.3	1.2	12.9	5.4	2.3	16.0	9.7	4.7	16.6	10.5	5.2
9.7	3.2	1.2	11.7	5.2	2.2	14.4	9.0	4.4	14.9	9.7	4.8
10.0	3.3	1.2	12.1	5.3	2.3	15.0	9.2	4.5	15.5	10.0	4.9
10.4	3.3	1.2	12.6	5.3	2.3	15.5	9.5	4.6	16.1	10.3	5.1
10.6	3.3	1.2	12.9	5.3	2.3	16.1	9.6	4.6	16.7	10.4	5.1
11.5	3.4	1.2	14.1	5.5	2.4	17.6	10.2	4.9	18.2	11.1	5.5
9.9	3.3	1.2	11.9	5.2	2.3	14.7	9.2	4.5	15.2	9.8	4.8
10.2	3.3	1.2	12.3	5.3	2.3	15.2	9.3	4.6	15.7	10.1	4.9
9.1	3.2	1.1	10.9	5.0	2.2	13.3	8.6	4.2	13.7	9.2	4.5
10.9	3.3	1.2	13.2	5.4	2.3	16.4	9.8	4.7	17.0	10.6	5.2
9.4	3.2	1.2	11.3	5.1	2.2	13.8	8.8	4.3	14.2	9.4	4.6
9.0	3.2	1.2	10.8	5.0	2.2	13.2	8.5	4.2	13.6	9.1	4.5
8.8	3.2	1.1	10.5	5.0	2.2	12.8	8.3	4.0	13.2	8.9	4.3
9.2	3.2	1.2	11.1	5.1	2.2	13.5	8.7	4.2	13.9	9.3	4.6
9.3	3.2	1.1	11.2	5.1	2.2	13.8	8.8	4.2	14.2	9.4	4.5
10.1	3.3	1.2	12.2	5.3	2.3	15.0	9.3	4.5	15.5	10.0	4.9
9.2	3.2	1.2	11.0	5.1	2.2	13.4	8.7	4.2	13.8	9.2	4.6
8.2	3.1	1.1	9.8	4.8	2.1	11.8	7.9	3.8	12.2	8.4	4.0
9.7	3.2	1.2	11.7	5.2	2.2	14.4	9.0	4.4	14.9	9.7	4.8
9.1	3.2	1.1	10.9	5.0	2.2	13.2	8.6	4.2	13.7	9.1	4.5
9.3	3.2	1.2	11.1	5.1	2.2	13.6	8.7	4.2	14.0	9.3	4.6
9.6	3.2	1.2	11.5	5.2	2.2	14.1	9.0	4.4	14.6	9.6	4.7
8.8	3.2	1.1	10.5	5.0	2.2	12.8	8.3	4.0	13.2	8.9	4.3
10.8	3.3	1.2	13.1	5.4	2.3	16.3	9.7	4.7	16.9	10.6	5.2
10.1	3.2	1.2	12.2	5.2	2.3	15.1	9.3	4.5	15.7	10.0	4.8
10.2	3.3	1.2	12.3	5.3	2.3	15.2	9.3	4.6	15.7	10.1	4.9
10.0	3.3	1.2	12.1	5.2	2.3	14.9	9.2	4.5	15.4	10.0	4.9
9.0	3.2	1.2	10.8	5.0	2.2	13.1	8.5	4.2	13.5	9.1	4.5
9.5	3.2	1.2	11.5	5.1	2.2	14.1	8.9	4.3	14.5	9.5	4.7
8.3	3.1	1.1	9.8	4.8	2.1	11.9	7.9	3.8	12.2	8.4	4.0
9.4	3.2	1.2	11.3	5.1	2.2	13.8	8.8	4.3	14.2	9.4	4.6

FLIGHT ALTITUDE: 1,500 FT. COMBINATION: B

SIGMAP = 2.5 SIGMAT = 2.0 SIGMARH = 8.0

TARGET #1			TARGET #2			TARGET #3			TARGET #4		
DET	CLASS (NMI)	ID	DET	CLASS (NMI)	ID	DET	CLASS (NMI)	ID	DET	CLASS (NMI)	ID
7.2	3.0	1.1	8.4	4.5	2.0	10.1	6.9	3.3	10.3	7.3	3.4
5.1	2.6	1.0	5.8	3.6	1.7	6.7	4.8	2.2	6.8	5.0	2.2
6.7	2.9	1.0	7.8	4.3	2.0	9.2	6.5	3.0	9.4	6.7	3.1
6.0	2.8	1.0	7.0	4.1	1.9	8.2	5.8	2.7	8.4	6.0	2.7
6.6	2.9	1.0	7.6	4.3	1.9	9.0	6.3	3.0	9.2	6.6	3.0
6.7	2.9	1.1	7.9	4.3	2.0	9.3	6.5	3.1	9.5	6.8	3.2
6.7	2.9	1.0	7.9	4.3	2.0	9.3	6.5	3.1	9.5	6.8	3.1
4.7	2.5	0.9	5.4	3.5	1.7	6.2	4.5	2.0	6.3	4.6	2.0
6.3	2.8	1.0	7.3	4.1	1.9	8.5	6.0	2.8	8.7	6.3	2.9
6.5	2.9	1.0	7.6	4.2	1.9	8.9	6.3	2.9	9.1	6.6	3.0
9.3	3.2	1.2	11.2	5.1	2.2	13.7	8.8	4.2	14.1	9.3	4.6
8.4	3.1	1.1	10.1	4.9	2.1	12.2	8.1	3.9	12.6	8.6	4.1
9.7	3.2	1.2	11.7	5.2	2.2	14.3	9.0	4.4	14.8	9.7	4.7
9.3	3.2	1.1	11.2	5.1	2.2	13.8	8.8	4.2	14.2	9.4	4.5
9.9	3.3	1.2	11.9	5.2	2.3	14.7	9.2	4.5	15.2	9.9	4.8
9.4	3.2	1.2	11.3	5.1	2.2	13.9	8.8	4.3	14.3	9.4	4.6
8.9	3.2	1.1	10.7	5.0	2.2	13.0	8.5	4.1	13.4	9.0	4.4
7.7	3.0	1.1	9.1	4.7	2.1	10.9	7.4	3.6	11.2	7.8	3.7
9.5	3.2	1.2	11.4	5.1	2.2	14.0	8.9	4.3	14.4	9.5	4.7
9.1	3.2	1.1	10.9	5.0	2.2	13.3	8.6	4.2	13.7	9.2	4.5
7.0	2.9	1.1	8.2	4.4	2.0	9.7	6.8	3.2	10.0	7.1	3.3
5.8	2.7	1.0	6.7	3.9	1.8	7.8	5.5	2.6	7.9	5.7	2.6
7.0	2.9	1.1	8.2	4.4	2.0	9.7	6.7	3.2	10.0	7.1	3.3
6.6	2.9	1.0	7.7	4.3	1.9	9.0	6.3	3.0	9.3	6.6	3.0
6.8	2.9	1.1	7.9	4.4	2.0	9.4	6.6	3.1	9.6	6.9	3.2
6.5	2.9	1.0	7.5	4.2	1.9	8.9	6.2	3.0	9.1	6.5	3.0
6.8	2.9	1.1	7.9	4.4	2.0	9.4	6.5	3.1	9.6	6.8	3.2
5.2	2.6	1.0	5.9	3.7	1.8	6.8	4.9	2.2	6.9	5.0	2.3
6.4	2.9	1.0	7.5	4.2	1.9	8.8	6.2	2.9	9.0	6.5	3.0
6.7	2.9	1.1	7.9	4.3	2.0	9.3	6.5	3.1	9.6	6.8	3.2
10.0	3.3	1.2	12.1	5.3	2.3	14.9	9.3	4.5	15.4	10.0	4.9
7.9	3.0	1.1	9.3	4.7	2.1	11.2	7.5	3.6	11.5	8.0	3.8
9.5	3.2	1.2	11.4	5.1	2.2	13.9	8.9	4.3	14.4	9.5	4.6
8.9	3.1	1.1	10.7	5.0	2.2	13.0	8.4	4.0	13.4	9.0	4.3
9.2	3.2	1.2	11.1	5.1	2.2	13.5	8.7	4.2	14.0	9.3	4.5
9.5	3.2	1.2	11.4	5.1	2.2	13.9	8.9	4.3	14.4	9.5	4.7
8.7	3.2	1.1	10.4	5.0	2.2	12.6	8.3	4.0	13.0	8.8	4.3
7.3	3.0	1.1	8.6	4.5	2.0	10.2	7.0	3.4	10.5	7.4	3.5
9.0	3.2	1.1	10.8	5.0	2.2	13.2	8.5	4.1	13.6	9.1	4.4
9.0	3.2	1.1	10.8	5.0	2.2	13.2	8.5	4.1	13.6	9.1	4.5
11.1	3.4	1.2	13.5	5.5	2.3	16.8	9.9	4.8	17.4	10.8	5.3
11.0	3.3	1.2	13.3	5.4	2.3	16.6	9.8	4.8	17.2	10.7	5.3
11.7	3.4	1.2	14.2	5.6	2.4	17.8	10.3	5.0	18.4	11.3	5.5
11.1	3.3	1.2	13.6	5.4	2.3	17.0	9.9	4.8	17.6	10.8	5.3
10.6	3.3	1.2	12.8	5.4	2.3	15.8	9.6	4.7	16.4	10.4	5.1
12.9	3.5	1.2	15.9	5.7	2.4	20.0	11.0	5.2	20.8	12.2	5.8
11.1	3.4	1.2	13.5	5.5	2.3	16.8	9.9	4.8	17.4	10.8	5.3
11.3	3.4	1.2	13.7	5.5	2.4	17.1	10.0	4.9	17.7	11.0	5.4
9.5	3.2	1.2	11.4	5.1	2.2	13.9	8.9	4.3	14.4	9.5	4.7
12.1	3.4	1.2	14.8	5.6	2.4	18.5	10.5	5.0	19.2	11.6	5.6
10.3	3.3	1.2	12.4	5.3	2.3	15.3	9.4	4.6	15.9	10.1	5.0
9.8	3.2	1.2	11.8	5.2	2.3	14.5	9.1	4.4	15.0	9.8	4.8
10.3	3.3	1.2	12.4	5.3	2.3	15.3	9.4	4.6	15.8	10.2	5.0
10.4	3.3	1.2	12.6	5.3	2.3	15.7	9.5	4.6	16.3	10.3	5.0
11.4	3.4	1.2	13.9	5.5	2.4	17.4	10.1	4.9	18.0	11.1	5.4
10.3	3.3	1.2	12.4	5.3	2.3	15.3	9.4	4.6	15.8	10.1	5.0
10.4	3.3	1.2	12.5	5.3	2.3	15.5	9.5	4.6	16.1	10.3	5.0
8.7	3.1	1.1	10.4	4.9	2.2	12.6	8.2	4.0	13.0	8.8	4.3
10.8	3.3	1.2	13.0	5.4	2.3	16.2	9.7	4.7	16.8	10.5	5.2
9.3	3.2	1.2	11.2	5.1	2.2	13.7	8.8	4.3	14.1	9.4	4.6
9.6	3.2	1.2	11.5	5.2	2.2	14.1	9.0	4.4	14.6	9.6	4.7
8.5	3.1	1.1	10.2	4.9	2.2	12.4	8.1	3.9	12.8	8.7	4.2
9.1	3.2	1.2	10.9	5.1	2.2	13.3	8.6	4.2	13.7	9.2	4.5
9.2	3.2	1.1	11.0	5.0	2.2	13.5	8.6	4.1	13.9	9.2	4.5
9.8	3.3	1.2	11.9	5.2	2.3	14.6	9.1	4.5	15.1	9.8	4.8
9.6	3.2	1.2	11.5	5.2	2.2	14.1	8.9	4.4	14.6	9.6	4.7
9.7	3.2	1.2	11.6	5.2	2.2	14.3	9.0	4.4	14.7	9.7	4.7
7.9	3.1	1.1	9.4	4.7	2.1	11.3	7.6	3.7	11.6	8.0	3.8
9.6	3.2	1.2	11.5	5.2	2.2	14.1	8.9	4.3	14.6	9.6	4.7
9.2	3.2	1.2	11.0	5.1	2.2	13.4	8.7	4.2	13.9	9.2	4.6
10.2	3.3	1.2	12.2	5.3	2.3	15.1	9.3	4.6	15.6	10.1	5.0
8.5	3.1	1.1	10.2	4.9	2.2	12.4	8.1	3.9	12.7	8.7	4.2
10.6	3.3	1.2	12.9	5.4	2.3	16.0	9.6	4.6	16.5	10.4	5.1
9.9	3.2	1.2	12.0	5.2	2.2	14.9	9.2	4.4	15.4	9.9	4.8
9.9	3.3	1.2	12.0	5.2	2.3	14.8	9.2	4.5	15.2	9.9	4.8
9.4	3.2	1.2	11.2	5.1	2.2	13.7	8.8	4.3	14.2	9.4	4.7
10.0	3.3	1.2	12.0	5.2	2.3	14.8	9.2	4.5	15.3	9.9	4.9
8.0	3.1	1.1	9.4	4.7	2.1	11.4	7.6	3.7	11.7	8.1	3.9
9.4	3.2	1.2	11.3	5.1	2.2	13.8	8.8	4.3	14.2	9.4	4.6
10.2	3.3	1.2	12.3	5.3	2.3	15.2	9.4	4.6	15.7	10.1	4.9

FLIGHT ALTITUDE: 1,500 FT. COMBINATION: C

SIGMAP = 2.5 SIGMAT = 4.0 SIGMARH = 8.0

TARGET #1			TARGET #2			TARGET #3			TARGET #4		
DET	CLASS (NMI)	ID	DET	CLASS (NMI)	ID	DET	CLASS (NMI)	ID	DET	CLASS (NMI)	ID
8.3	3.1	1.1	9.9	4.8	2.1	12.0	7.9	3.8	12.3	8.4	4.0
4.7	2.5	0.9	5.3	3.4	1.6	6.1	4.4	2.0	6.2	4.5	2.0
6.4	2.8	1.0	7.4	4.2	1.9	8.7	6.1	2.9	8.9	6.4	2.9
5.8	2.7	1.0	6.7	3.9	1.8	7.8	5.6	2.5	8.0	5.8	2.6
6.1	2.8	1.0	7.1	4.1	1.9	8.3	5.9	2.7	8.5	6.1	2.8
7.5	3.0	1.1	8.8	4.6	2.0	10.5	7.2	3.5	10.8	7.6	3.6
7.4	3.0	1.1	8.7	4.6	2.0	10.3	7.1	3.4	10.6	7.5	3.5
4.2	2.3	0.9	4.8	3.2	1.5	5.4	3.9	1.7	5.5	4.0	1.7
6.0	2.8	1.0	6.9	4.0	1.9	8.1	5.7	2.7	8.3	5.9	2.7
6.6	2.9	1.0	7.7	4.3	1.9	9.1	6.4	3.0	9.3	6.7	3.1
10.4	3.3	1.2	12.6	5.3	2.3	15.6	9.5	4.6	16.1	10.3	5.1
7.9	3.1	1.1	9.4	4.7	2.1	11.3	7.6	3.7	11.7	8.0	3.8
9.3	3.2	1.2	11.2	5.1	2.2	13.7	8.8	4.2	14.2	9.4	4.6
9.0	3.2	1.1	10.8	5.0	2.2	13.1	8.5	4.0	13.6	9.1	4.4
9.5	3.2	1.2	11.4	5.1	2.2	14.0	8.9	4.3	14.5	9.5	4.7
10.2	3.3	1.2	12.3	5.3	2.3	15.2	9.4	4.6	15.8	10.1	5.0
9.5	3.2	1.2	11.4	5.2	2.2	13.9	8.9	4.4	14.4	9.5	4.7
7.0	2.9	1.1	8.2	4.4	2.0	9.7	6.7	3.2	9.9	7.0	3.3
9.1	3.2	1.1	11.0	5.0	2.2	13.4	8.6	4.2	13.9	9.2	4.5
9.2	3.2	1.2	11.0	5.1	2.2	13.4	8.7	4.2	13.8	9.2	4.5
8.0	3.1	1.1	9.4	4.7	2.1	11.4	7.6	3.7	11.7	8.1	3.9
5.3	2.6	1.0	6.1	3.7	1.8	7.1	5.1	2.3	7.2	5.2	2.4
6.7	2.9	1.0	7.8	4.3	2.0	9.2	6.4	3.0	9.4	6.7	3.1
6.2	2.8	1.0	7.3	4.1	1.9	8.5	6.0	2.8	8.7	6.3	2.9
6.5	2.9	1.0	7.6	4.2	1.9	8.9	6.3	2.9	9.1	6.5	3.0
7.0	2.9	1.1	8.3	4.5	2.0	9.8	6.8	3.3	10.1	7.1	3.4
7.1	3.0	1.1	8.3	4.5	2.0	9.9	6.9	3.3	10.1	7.2	3.4
4.5	2.4	0.9	5.1	3.3	1.6	5.8	4.2	1.9	5.9	4.3	1.9
6.2	2.8	1.0	7.2	4.1	1.9	8.5	6.0	2.8	8.7	6.2	2.9
6.8	2.9	1.1	7.9	4.3	2.0	9.3	6.5	3.1	9.5	6.8	3.2
11.2	3.4	1.2	13.5	5.5	2.4	16.8	10.0	4.8	17.4	10.9	5.4
7.3	3.0	1.1	8.6	4.5	2.0	10.3	7.0	3.4	10.6	7.4	3.5
9.1	3.2	1.1	10.9	5.0	2.2	13.3	8.6	4.1	13.7	9.1	4.5
8.6	3.1	1.1	10.2	4.9	2.1	12.4	8.1	3.9	12.8	8.7	4.1
8.7	3.1	1.1	10.5	5.0	2.2	12.7	8.3	4.0	13.1	8.9	4.3
10.3	3.3	1.2	12.3	5.3	2.3	15.2	9.4	4.6	15.7	10.1	5.0
9.3	3.2	1.2	11.1	5.1	2.2	13.6	8.8	4.3	14.0	9.3	4.6
6.6	2.9	1.0	7.7	4.3	2.0	9.1	6.4	3.0	9.3	6.6	3.1
8.7	3.1	1.1	10.4	4.9	2.2	12.6	8.3	4.0	13.0	8.8	4.3
9.1	3.2	1.2	10.9	5.1	2.2	13.3	8.6	4.2	13.7	9.2	4.5
12.2	3.4	1.2	14.9	5.6	2.4	18.8	10.6	5.1	19.5	11.6	5.6
10.4	3.3	1.2	12.6	5.3	2.3	15.6	9.5	4.6	16.1	10.3	5.0
11.4	3.4	1.2	13.8	5.5	2.4	17.2	10.1	4.9	17.8	11.0	5.4
10.7	3.3	1.2	12.9	5.4	2.3	16.1	9.6	4.7	16.6	10.5	5.1
12.8	3.5	1.2	15.7	5.7	2.4	19.9	10.9	5.2	20.6	12.1	5.8
11.8	3.4	1.2	14.4	5.6	2.4	18.0	10.4	5.0	18.6	11.4	5.5
11.6	3.4	1.2	14.1	5.5	2.4	17.5	10.2	4.9	18.1	11.2	5.5
8.5	3.1	1.1	10.2	4.9	2.2	12.3	8.1	3.9	12.7	8.7	4.2
11.9	3.4	1.2	14.5	5.6	2.4	18.2	10.4	5.0	18.9	11.4	5.6
10.3	3.3	1.2	12.4	5.3	2.3	15.3	9.4	4.6	15.8	10.2	5.0
11.3	3.4	1.2	13.8	5.5	2.4	17.2	10.1	4.9	17.9	11.0	5.4
9.2	3.2	1.2	11.1	5.1	2.2	13.6	8.7	4.2	14.0	9.3	4.5
10.0	3.3	1.2	12.0	5.2	2.3	14.8	9.2	4.5	15.3	9.9	4.9
10.0	3.2	1.2	12.0	5.2	2.2	14.9	9.2	4.4	15.4	9.9	4.8
11.2	3.4	1.2	13.7	5.5	2.3	17.1	10.0	4.8	17.7	10.9	5.4
11.0	3.3	1.2	13.3	5.4	2.3	16.5	9.8	4.8	17.1	10.7	5.3
10.7	3.3	1.2	13.0	5.4	2.3	16.0	9.7	4.7	16.6	10.5	5.2
7.8	3.0	1.1	9.2	4.7	2.1	11.1	7.5	3.6	11.4	7.9	3.8
10.5	3.3	1.2	12.7	5.4	2.3	15.8	9.6	4.6	16.3	10.3	5.1
9.1	3.2	1.2	10.9	5.1	2.2	13.2	8.6	4.2	13.6	9.2	4.5
10.7	3.3	1.2	12.9	5.4	2.3	16.0	9.7	4.7	16.6	10.5	5.2
8.0	3.1	1.1	9.5	4.7	2.1	11.4	7.7	3.7	11.8	8.1	3.9
8.8	3.2	1.1	10.5	5.0	2.2	12.7	8.3	4.1	13.1	8.9	4.4
8.8	3.1	1.1	10.6	5.0	2.2	12.9	8.4	4.0	13.3	9.0	4.3
9.3	3.2	1.2	11.2	5.1	2.2	13.8	8.8	4.3	14.2	9.4	4.6
10.4	3.3	1.2	12.5	5.3	2.3	15.5	9.5	4.6	16.0	10.2	5.1
10.4	3.3	1.2	12.5	5.3	2.3	15.5	9.5	4.6	16.0	10.3	5.1
7.2	3.0	1.1	8.5	4.5	2.0	10.1	7.0	3.3	10.4	7.3	3.5
9.2	3.2	1.2	11.1	5.1	2.2	13.5	8.7	4.2	14.0	9.3	4.5
9.3	3.2	1.2	11.2	5.1	2.2	13.6	8.8	4.3	14.1	9.4	4.6
11.3	3.4	1.2	13.7	5.5	2.4	17.0	10.0	4.9	17.6	11.0	5.4
8.0	3.1	1.1	9.5	4.7	2.1	11.4	7.6	3.7	11.7	8.1	3.9
10.2	3.3	1.2	12.3	5.3	2.3	15.2	9.3	4.5	15.7	10.1	4.9
9.6	3.2	1.2	11.6	5.1	2.2	14.2	8.9	4.3	14.7	9.6	4.6
9.4	3.2	1.2	11.3	5.1	2.2	13.9	8.8	4.3	14.3	9.4	4.6
10.1	3.3	1.2	12.2	5.3	2.3	15.0	9.3	4.6	15.5	10.0	5.0
10.8	3.3	1.2	13.0	5.4	2.3	16.2	9.7	4.7	16.7	10.6	5.2
7.3	3.0	1.1	8.6	4.5	2.0	10.2	7.0	3.4	10.5	7.4	3.5
9.0	3.2	1.1	10.8	5.0	2.2	13.2	8.5	4.1	13.6	9.1	4.5
10.5	3.3	1.2	12.6	5.3	2.3	15.6	9.5	4.6	16.1	10.3	5.0

FLIGHT ALTITUDE: 1,500 FT.   COMBINATION: D

SIGMAP = 1.5   SIGMAT = 1.0   SIGMARH = 8.0

TARGET #1			TARGET #2			TARGET #3			TARGET #4		
DET	CLASS (NMI)	ID	DET	CLASS (NMI)	ID	DET	CLASS (NMI)	ID	DET	CLASS (NMI)	ID
6.5	2.9	1.0	7.6	4.3	1.9	9.0	6.3	3.0	9.2	6.6	3.0
5.3	2.6	1.0	6.1	3.7	1.8	7.0	5.1	2.3	7.2	5.2	2.3
6.7	2.9	1.0	7.8	4.3	2.0	9.2	6.5	3.0	9.5	6.8	3.1
6.2	2.8	1.0	7.2	4.1	1.9	8.4	6.0	2.8	8.6	6.2	2.8
6.8	2.9	1.1	7.9	4.3	2.0	9.4	6.5	3.1	9.6	6.8	3.2
6.3	2.8	1.0	7.4	4.2	1.9	8.7	6.1	2.9	8.9	6.4	2.9
6.3	2.8	1.0	7.3	4.2	1.9	8.6	6.1	2.8	8.8	6.3	2.9
5.1	2.6	1.0	5.8	3.6	1.7	6.6	4.8	2.2	6.8	4.9	2.2
6.3	2.8	1.0	7.4	4.2	1.9	8.7	6.1	2.9	8.9	6.4	2.9
6.3	2.8	1.0	7.3	4.2	1.9	8.6	6.1	2.8	8.8	6.3	2.9
8.7	3.2	1.1	10.5	5.0	2.2	12.7	8.3	4.0	13.1	8.9	4.3
8.7	3.1	1.1	10.4	4.9	2.2	12.7	8.3	4.0	13.1	8.8	4.3
9.8	3.2	1.2	11.9	5.2	2.3	14.6	9.1	4.4	15.1	9.8	4.8
9.6	3.2	1.2	11.5	5.1	2.2	14.2	8.9	4.3	14.7	9.6	4.6
10.1	3.3	1.2	12.2	5.3	2.3	15.1	9.3	4.5	15.6	10.0	4.9
9.0	3.2	1.1	10.8	5.0	2.2	13.2	8.5	4.1	13.6	9.1	4.4
9.0	3.2	1.1	10.8	5.0	2.2	13.1	8.5	4.1	13.5	9.1	4.4
8.7	3.2	1.1	10.4	4.9	2.2	12.6	8.3	4.0	13.0	8.8	4.3
8.1	3.1	1.1	9.6	4.8	2.1	11.6	7.8	3.7	12.0	8.2	3.9
9.6	3.2	1.2	11.5	5.2	2.2	14.1	8.9	4.3	14.6	9.6	4.7
6.4	2.9	1.0	7.5	4.2	1.9	8.8	6.2	2.9	9.0	6.5	3.0
6.0	2.8	1.0	7.0	4.0	1.9	8.1	5.8	2.7	8.3	6.0	2.7
7.0	2.9	1.1	8.2	4.4	2.0	9.8	6.8	3.2	10.0	7.1	3.3
6.8	2.9	1.0	7.9	4.3	2.0	9.4	6.6	3.1	9.6	6.9	3.2
7.0	2.9	1.1	8.2	4.4	2.0	9.8	6.8	3.2	10.0	7.1	3.3
6.1	2.8	1.0	7.1	4.1	1.9	8.3	5.9	2.8	8.5	6.1	2.8
6.6	2.9	1.0	7.7	4.3	2.0	9.1	6.4	3.0	9.3	6.7	3.1
5.5	2.7	1.0	6.4	3.8	1.8	7.4	5.3	2.4	7.5	5.5	2.5
6.5	2.9	1.0	7.6	4.3	1.9	9.0	6.3	3.0	9.2	6.6	3.1
6.6	2.9	1.0	7.7	4.3	1.9	9.1	6.4	3.0	9.3	6.6	3.1
9.3	3.2	1.2	11.2	5.1	2.2	13.7	8.8	4.3	14.1	9.4	4.6
8.1	3.1	1.1	9.7	4.8	2.1	11.7	7.8	3.8	12.0	8.3	4.0
9.5	3.2	1.2	11.4	5.1	2.2	14.0	8.9	4.3	14.4	9.5	4.6
9.1	3.2	1.1	11.0	5.0	2.2	13.4	8.6	4.1	13.9	9.2	4.4
9.5	3.2	1.2	11.4	5.1	2.2	13.9	8.9	4.3	14.4	9.5	4.6
9.0	3.2	1.1	10.8	5.0	2.2	13.1	8.5	4.1	13.5	9.1	4.5
8.3	3.1	1.1	9.9	4.8	2.1	11.9	7.9	3.9	12.3	8.4	4.1
7.7	3.0	1.1	9.1	4.7	2.1	10.9	7.4	3.6	11.2	7.8	3.7
9.1	3.2	1.1	10.9	5.0	2.2	13.3	8.6	4.2	13.7	9.2	4.5
8.8	3.2	1.1	10.5	5.0	2.2	12.8	8.3	4.0	13.2	8.9	4.3
10.5	3.3	1.2	12.6	5.3	2.3	15.7	9.5	4.6	16.2	10.3	5.1
11.2	3.4	1.2	13.6	5.5	2.3	17.0	10.0	4.8	17.6	10.9	5.4
11.8	3.4	1.2	14.4	5.6	2.4	17.9	10.3	5.0	18.6	11.3	5.5
11.4	3.4	1.2	14.0	5.5	2.3	17.5	10.1	4.8	18.1	11.1	5.4
13.0	3.5	1.2	15.9	5.7	2.4	20.1	11.0	5.2	20.8	12.2	5.8
10.6	3.3	1.2	12.8	5.4	2.3	15.8	9.6	4.7	16.3	10.4	5.1
10.8	3.3	1.2	13.0	5.4	2.3	16.2	9.7	4.7	16.7	10.5	5.2
11.0	3.3	1.2	13.4	5.4	2.3	16.6	9.9	4.8	17.2	10.7	5.3
10.1	3.3	1.2	12.1	5.3	2.3	15.0	9.3	4.5	15.5	10.0	4.9
12.1	3.4	1.2	14.8	5.6	2.4	18.6	10.5	5.1	19.2	11.6	5.6
9.6	3.2	1.2	11.6	5.2	2.2	14.2	9.0	4.4	14.7	9.6	4.7
10.1	3.3	1.2	12.1	5.3	2.3	15.0	9.3	4.5	15.5	10.0	4.9
10.4	3.3	1.2	12.5	5.3	2.3	15.4	9.5	4.6	16.0	10.2	5.0
9.3	3.2	1.2	11.2	5.1	2.2	13.6	8.8	4.3	14.1	9.3	4.6
10.7	3.3	1.2	13.0	5.4	2.3	16.2	9.6	4.6	16.8	10.5	5.1
11.5	3.4	1.2	14.0	5.5	2.4	17.5	10.2	4.9	18.2	11.1	5.5
9.9	3.3	1.2	11.9	5.2	2.3	14.6	9.1	4.5	15.1	9.8	4.8
10.1	3.3	1.2	12.2	5.3	2.3	15.1	9.3	4.5	15.6	10.0	4.9
9.2	3.2	1.2	11.0	5.1	2.2	13.5	8.7	4.2	13.9	9.2	4.5
10.8	3.3	1.2	13.1	5.4	2.3	16.3	9.7	4.7	16.8	10.6	5.2
9.1	3.2	1.2	10.9	5.1	2.2	13.3	8.6	4.2	13.7	9.2	4.5
8.8	3.2	1.1	10.6	5.0	2.2	12.9	8.4	4.0	13.3	8.9	4.3
9.1	3.2	1.2	10.9	5.1	2.2	13.3	8.6	4.2	13.7	9.2	4.5
9.4	3.2	1.2	11.3	5.1	2.2	13.9	8.8	4.2	14.3	9.4	4.6
10.1	3.3	1.2	12.1	5.3	2.3	15.0	9.3	4.5	15.5	10.0	4.9
9.3	3.2	1.2	11.2	5.1	2.2	13.6	8.8	4.3	14.1	9.3	4.6
9.3	3.2	1.2	11.2	5.1	2.2	13.7	8.8	4.3	14.2	9.4	4.6
8.3	3.1	1.1	9.9	4.8	2.1	12.0	7.9	3.8	12.4	8.5	4.1
9.7	3.2	1.2	11.7	5.2	2.2	14.3	9.0	4.4	14.8	9.7	4.7
9.1	3.2	1.1	10.9	5.0	2.2	13.3	8.6	4.2	13.7	9.2	4.5
9.7	3.2	1.2	11.6	5.2	2.3	14.3	9.0	4.4	14.7	9.7	4.8
8.8	3.2	1.1	10.6	5.0	2.2	12.9	8.4	4.0	13.3	8.9	4.3
10.6	3.3	1.2	12.9	5.4	2.3	16.0	9.6	4.6	16.5	10.4	5.1
10.2	3.3	1.2	12.3	5.2	2.3	15.3	9.3	4.5	15.8	10.0	4.8
10.2	3.3	1.2	12.3	5.3	2.3	15.2	9.3	4.6	15.7	10.1	4.9
9.2	3.2	1.2	11.0	5.1	2.2	13.4	8.7	4.2	13.8	9.2	4.6
9.6	3.2	1.2	11.6	5.2	2.2	14.2	9.0	4.4	14.7	9.6	4.7
8.3	3.1	1.1	9.9	4.8	2.1	12.0	7.9	3.8	12.4	8.5	4.1
9.5	3.2	1.2	11.4	5.1	2.2	13.9	8.9	4.3	14.4	9.5	4.7
10.0	3.3	1.2	12.1	5.2	2.3	14.9	9.2	4.5	15.4	9.9	4.8

FLIGHT ALTITUDE: 1,500 FT. COMBINATION: E

SIGMAP = 1.5 SIGMAT = 2.0 SIGMARH = 8.0

TARGET #1			TARGET #2			TARGET #3			TARGET #4		
DET	CLASS (NMI)	ID	DET	CLASS (NMI)	ID	DET	CLASS (NMI)	ID	DET	CLASS (NMI)	ID
7.1	2.9	1.1	8.3	4.5	2.0	9.9	6.8	3.2	10.1	7.2	3.4
5.1	2.6	1.0	5.8	3.6	1.7	6.7	4.9	2.2	6.9	5.0	2.2
6.5	2.9	1.0	7.6	4.3	1.9	9.0	6.3	3.0	9.2	6.6	3.0
6.1	2.8	1.0	7.0	4.1	1.9	8.2	5.9	2.7	8.4	6.1	2.8
6.5	2.9	1.0	7.6	4.3	1.9	9.0	6.3	3.0	9.2	6.6	3.0
6.7	2.9	1.0	7.8	4.3	2.0	9.2	6.5	3.0	9.5	6.7	3.1
6.7	2.9	1.0	7.8	4.3	2.0	9.2	6.4	3.0	9.4	6.7	3.1
4.8	2.5	0.9	5.5	3.5	1.7	6.3	4.5	2.0	6.4	4.7	2.1
6.2	2.8	1.0	7.2	4.1	1.9	8.5	6.0	2.8	8.7	6.2	2.8
6.4	2.8	1.0	7.4	4.2	1.9	8.8	6.2	2.9	9.0	6.4	3.0
9.3	3.2	1.2	11.2	5.1	2.2	13.7	8.8	4.2	14.1	9.4	4.6
8.5	3.1	1.1	10.1	4.9	2.1	12.3	8.1	3.9	12.6	8.6	4.1
9.7	3.2	1.2	11.7	5.2	2.2	14.3	9.0	4.4	14.8	9.7	4.7
9.4	3.2	1.1	11.3	5.1	2.2	13.9	8.8	4.2	14.3	9.4	4.5
9.9	3.3	1.2	11.9	5.2	2.3	14.7	9.2	4.5	15.2	9.9	4.8
9.4	3.2	1.2	11.3	5.1	2.2	13.8	8.8	4.3	14.2	9.4	4.6
9.0	3.2	1.1	10.8	5.0	2.2	13.1	8.5	4.2	13.6	9.1	4.5
7.8	3.0	1.1	9.2	4.7	2.1	11.1	7.5	3.6	11.4	7.9	3.8
9.4	3.2	1.2	11.3	5.1	2.2	13.9	8.8	4.3	14.4	9.5	4.6
9.1	3.2	1.1	10.9	5.0	2.2	13.3	8.6	4.1	13.7	9.2	4.5
6.9	2.9	1.1	8.1	4/4	2.0	9.6	6.7	3.2	9.8	7.0	3.3
5.8	2.7	1.0	6.7	4.0	1.8	7.8	5.6	2.6	8.0	5.8	2.6
6.9	2.9	1.1	8.0	4.4	2.0	9.5	6.6	3.1	9.8	6.9	3.2
6.6	2.9	1.0	7.8	4.3	1.9	9.2	6.4	3.0	9.4	6.7	3.1
6.8	2.9	1.1	8.0	4.4	2.0	9.5	6.6	3.1	9.7	6.9	3.2
6.4	2.9	1.0	7.5	4.2	1.9	8.8	6.2	2.9	9.0	6.5	3.0
6.9	2.9	1.1	8.1	4.4	2.0	9.5	6.7	3.2	9.8	7.0	3.3
5.2	2.6	1.0	6.0	3.7	1.8	6.9	5.0	2.3	7.0	5.1	2.3
6.4	2.9	1.0	7.5	4.2	1.9	8.8	6.2	2.9	9.0	6.5	3.0
6.6	2.9	1.0	7.7	4.3	2.0	9.1	6.4	3.0	9.3	6.7	3.1
9.9	3.3	1.2	11.9	5.2	2.3	14.6	9.2	4.5	15.1	9.8	4.9
7.9	3.1	1.1	9.3	4.7	2.1	11.3	7.6	3.6	11.6	8.0	3.8
9.3	3.2	1.2	11.2	5.1	2.2	13.7	8.7	4.2	14.1	9.3	4.6
8.9	3.2	1.1	10.8	5.0	2.2	13.1	8.5	4.0	13.6	9.1	4.3
9.2	3.2	1.2	11.1	5.1	2.2	13.5	8.7	4.2	14.0	9.3	4.5
9.4	3.2	1.2	11.3	5.1	2.2	13.8	8.8	4.3	14.2	9.4	4.6
8.6	3.1	1.1	10.3	4.9	2.2	12.5	8.2	4.0	12.9	8.8	4.3
7.4	3.0	1.1	8.7	4.6	2.0	10.4	7.1	3.4	10.7	7.5	3.6
8.9	3.2	1.1	10.7	5.0	2.2	13.1	8.5	4.1	13.5	9.0	4.4
8.9	3.2	1.1	10.6	5.0	2.2	12.9	8.4	4.1	13.3	9.0	4.4
11.1	3.4	1.2	13.5	5.5	2.3	16.8	9.9	4.8	17.4	10.8	5.3
11.0	3.3	1.2	13.3	5.4	2.3	16.6	9.8	4.8	17.2	10.7	5.3
11.7	3.4	1.2	14.2	5.6	2.4	17.8	10.3	5.0	18.4	11.3	5.5
11.1	3.3	1.2	13.6	5.4	2.3	17.0	9.9	4.8	17.6	10.8	5.3
12.9	3.5	1.2	15.9	5.7	2.4	20.0	11.0	5.2	20.8	12.2	5.8
11.1	3.4	1.2	13.5	5.5	2.3	16.8	9.9	4.8	17.4	10.8	5.3
11.3	3.4	1.2	13.7	5.5	2.4	17.1	10.0	4.9	17.7	11.0	5.4
9.5	3.2	1.2	11.4	5.1	2.2	13.9	8.9	4.3	14.4	9.5	4.7
12.1	3.4	1.2	14.8	5.6	2.4	18.5	10.5	5.0	19.2	11.6	5.6
10.6	3.3	1.2	12.8	5.4	2.3	15.8	9.6	4.7	16.4	10.4	5.1
10.2	3.3	1.2	12.3	5.3	2.3	15.2	9.3	4.6	15.7	10.1	4.9
9.8	3.3	1.2	11.8	5.2	2.3	14.6	9.1	4.4	15.0	9.8	4.8
10.2	3.3	1.2	12.3	5.3	2.3	15.2	9.4	4.6	15.7	10.1	5.0
10.5	3.3	1.2	12.7	5.3	2.3	15.8	9.5	4.6	16.4	10.3	5.0
11.4	3.4	1.2	13.9	5.5	2.4	17.4	10.1	4.9	18.0	11.1	5.4
10.2	3.3	1.2	12.3	5.3	2.3	15.3	9.4	4.6	15.8	10.1	5.0
10.3	3.3	1.2	12.4	5.3	2.3	15.4	9.4	4.6	15.9	10.2	5.0
8.8	3.2	1.1	10.5	5.0	2.2	12.8	8.3	4.0	13.2	8.9	4.3
10.7	3.3	1.2	13.0	5.4	2.3	16.1	9.7	4.7	16.7	10.5	5.2
9.2	3.2	1.2	11.1	5.1	2.2	13.5	8.7	4.2	13.9	9.3	4.6
9.7	3.2	1.2	11.6	5.2	2.3	14.3	9.0	4.4	14.8	9.7	4.8
8.5	3.1	1.1	10.2	4.9	2.2	12.4	8.1	3.9	12.8	8.7	4.2
8.9	3.2	1.1	10.7	5.0	2.2	13.0	8.5	4.1	13.4	9.0	4.4
9.2	3.2	1.1	11.1	5.1	2.2	13.6	8.7	4.2	14.0	9.3	4.5
9.8	3.3	1.2	11.8	5.2	2.3	14.6	9.1	4.4	15.1	9.8	4.8
9.7	3.2	1.2	11.7	5.2	2.3	14.3	9.0	4.4	14.8	9.7	4.8
9.7	3.2	1.2	11.7	5.2	2.3	14.4	9.1	4.4	14.9	9.7	4.8
8.0	3.1	1.1	9.5	4.8	2.1	11.5	7.7	3.7	11.8	8.1	3.9
9.5	3.2	1.2	11.5	5.1	2.2	14.1	8.9	4.3	14.5	9.5	4.7
9.2	3.2	1.2	11.0	5.1	2.2	13.5	8.7	4.2	13.9	9.3	4.6
10.3	3.3	1.2	12.4	5.3	2.3	15.3	9.4	4.6	15.8	10.1	5.0
8.5	3.1	1.1	10.2	4.9	2.2	12.4	8.1	3.9	12.8	8.7	4.2
10.4	3.3	1.2	12.6	5.3	2.3	15.6	9.5	4.6	16.2	10.3	5.0
10.0	3.2	1.2	12.1	5.2	2.2	15.0	9.2	4.4	15.5	9.9	4.8
9.9	3.3	1.2	11.9	5.2	2.3	14.7	9.2	4.5	15.2	9.9	4.8
9.6	3.2	1.2	11.5	5.2	2.2	14.0	8.9	4.4	14.5	9.6	4.7
10.1	3.3	1.2	12.1	5.3	2.3	15.0	9.3	4.5	15.5	10.0	4.9
8.0	3.1	1.1	9.5	4.8	2.1	11.5	7.7	3.7	11.8	8.2	3.9
9.3	3.2	1.2	11.2	5.1	2.2	13.7	8.8	4.3	14.1	9.4	4.6
10.2	3.3	1.2	12.3	5.3	2.3	15.2	9.3	4.5	15.7	10.1	4.9

FLIGHT ALTITUDE = 1,500 FT.   COMBINATION: F

SIGMAP = 1.5 SIGMAT = 4.0 SIGMARH 8.0

TARGET #1			TARGET#2			TARGET#3			TARGET#4		
DET	CLASS (NMI)	ID	DET	CLASS (NMI)	ID	DET	CLASS (NMI)	ID	DET	CLASS (NMI)	ID
8.2	3.1	1.1	9.7	4.8	2.1	11.8	7.8	3.8	12.1	8.3	4.0
4.7	2.5	0.9	5.4	3.4	1.6	6.1	4.4	2.0	6.2	4.5	2.0
6.2	2.8	1.0	7.2	4.1	1.9	8.5	6.0	2.8	8.7	6.2	2.8
5.8	2.7	1.0	6.7	4.0	1.8	7.9	5.6	2.6	8.0	5.8	2.6
6.1	2.8	1.0	7.1	4.1	1.9	8.3	5.9	2.7	8.5	6.1	2.8
7.4	3.0	1.1	8.7	4.6	2.0	10.5	7.2	3.4	10.7	7.5	3.6
7.3	3.0	1.1	8.6	4.5	2.0	10.2	7.0	3.4	10.5	7.4	3.5
4.3	2.4	0.9	4.9	3.2	1.5	5.5	4.0	1.8	5.6	4.1	1.8
5.9	2.8	1.0	6.9	4.0	1.9	8.0	5.7	2.6	8.2	5.9	2.7
6.5	2.9	1.0	7.6	4.3	1.9	8.9	6.3	2.9	9.1	6.6	3.0
10.5	3.3	1.2	12.6	5.3	2.3	15.7	9.5	4.6	16.2	10.3	5.1
7.9	3.1	1.1	9.4	4.7	2.1	11.4	7.6	3.7	11.7	8.1	3.9
9.3	3.2	1.2	11.2	5.1	2.2	13.7	8.8	4.2	14.1	9.4	4.6
9.0	3.2	1.1	10.9	5.0	2.2	13.3	8.5	4.1	13.7	9.1	4.4
9.1	3.2	1.1	11.0	5.1	2.2	13.3	8.6	4.2	13.8	9.2	4.5
9.5	3.2	1.2	11.4	5.1	2.2	14.0	8.9	4.3	14.5	9.5	4.6
10.2	3.3	1.2	12.3	5.3	2.3	15.2	9.4	4.6	15.7	10.1	5.0
9.6	3.2	1.2	11.5	5.2	2.2	14.1	9.0	4.4	14.5	9.6	4.7
7.1	3.0	1.1	8.4	4.5	2.0	9.9	6.9	3.3	10.2	7.2	3.4
9.1	3.2	1.1	10.9	5.0	2.2	13.3	8.6	4.2	13.8	9.2	4.5
7.9	3.1	1.1	9.3	4.7	2.1	11.2	7.5	3.6	11.5	8.0	3.8
5.3	2.6	1.0	6.1	3.8	1.8	7.1	5.1	2.3	7.2	5.3	2.4
6.5	2.9	1.0	7.6	4.3	1.9	9.0	6.3	3.0	9.2	6.6	3.0
6.4	2.8	1.0	7.4	4.2	1.9	8.7	6.1	2.8	8.9	6.4	2.9
6.5	2.9	1.0	7.5	4.2	1.9	8.9	6.2	2.9	9.1	6.5	3.0
7.0	2.9	1.1	8.2	4.5	2.0	9.8	6.8	3.2	10.0	7.1	3.4
7.4	3.0	1.1	8.7	4.6	2.0	10.3	7.1	3.4	10.6	7.5	3.5
6.6	2.9	1.0	7.7	4.3	1.9	9.0	6.4	3.0	9.2	6.6	3.1
4.6	2.5	0.9	5.2	3.4	1.6	6.0	4.3	1.9	6.1	4.4	2.0
6.2	2.8	1.0	7.2	4.1	1.9	8.5	6.0	2.8	8.7	6.2	2.9
11.0	3.4	1.2	13.4	5.5	2.3	16.6	9.9	4.8	17.2	10.8	5.3
7.3	3.0	1.1	8.6	4.6	2.0	10.3	7.1	3.4	10.6	7.4	3.5
8.9	3.2	1.1	10.7	5.0	2.2	13.0	8.4	4.1	13.4	9.0	4.4
8.6	3.1	1.1	10.3	4.9	2.1	12.6	8.2	3.9	13.0	8.8	4.2
8.7	3.1	1.1	10.5	4.9	2.2	12.7	8.3	4.0	13.1	8.8	4.3
10.2	3.3	1.2	12.2	5.3	2.3	15.1	9.3	4.6	15.6	10.1	5.0
9.2	3.2	1.2	11.0	5.1	2.2	13.4	8.7	4.3	13.8	9.3	4.6
6.7	2.9	1.1	7.8	4.3	2.0	9.3	6.5	3.1	9.5	6.8	3.2
8.6	3.1	1.1	10.3	4.9	2.2	12.5	8.2	4.0	12.9	8.8	4.2
9.0	3.2	1.1	10.7	5.0	2.2	13.0	8.5	4.1	13.4	9.1	4.4
12.1	3.4	1.2	14.8	5.6	2.4	18.6	10.5	5.0	19.2	11.6	5.6
10.4	3.3	1.2	12.5	5.3	2.3	15.5	9.5	4.6	16.1	10.2	5.0
11.3	3.4	1.2	13.7	5.5	2.4	17.1	10.0	4.9	17.7	11.0	5.4
10.7	3.3	1.2	13.0	5.4	2.3	16.2	9.7	4.7	16.8	10.5	5.1
12.8	3.5	1.2	15.7	5.7	2.4	19.9	10.9	5.2	20.6	12.1	5.8
11.8	3.4	1.2	14.4	5.6	2.4	18.0	10.3	5.0	18.6	11.3	5.5
11.5	3.4	1.2	13.9	5.5	2.4	17.3	10.1	4.9	17.9	11.1	5.5
8.7	3.2	1.1	10.4	5.0	2.2	12.6	8.3	4.0	13.0	8.9	4.3
11.8	3.4	1.2	14.4	5.6	2.4	18.1	10.4	5.0	18.7	11.4	5.5
10.2	3.3	1.2	12.2	5.3	2.3	15.0	9.3	4.6	15.5	10.1	5.0
11.2	3.4	1.2	13.7	5.5	2.3	17.1	10.0	4.8	17.7	10.9	5.4
9.3	3.2	1.2	11.1	5.1	2.2	13.6	8.7	4.2	14.1	9.3	4.6
9.9	3.3	1.2	11.9	5.2	2.3	14.7	9.2	4.5	15.1	9.8	4.8
10.0	3.3	1.2	12.1	5.2	2.3	15.0	9.2	4.5	15.5	9.9	4.8
11.2	3.4	1.2	13.7	5.5	2.3	17.1	10.0	4.8	17.7	10.9	5.4
10.9	3.3	1.2	13.3	5.4	2.3	16.5	9.8	4.8	17.1	10.7	5.3
10.6	3.3	1.2	12.8	5.4	2.3	15.9	9.6	4.7	16.4	10.4	5.1
8.0	3.1	1.1	9.4	4.7	2.1	11.3	7.6	3.7	11.6	8.1	3.9
10.5	3.3	1.2	12.6	5.3	2.3	15.7	9.5	4.6	16.3	10.3	5.1
9.0	3.2	1.1	10.7	5.0	2.2	13.0	8.5	4.1	13.4	9.1	4.5
10.6	3.3	1.2	12.7	5.4	2.3	15.8	9.6	4.7	16.3	10.4	5.1
8.0	3.1	1.1	9.5	4.8	2.1	11.5	7.7	3.7	11.8	8.1	3.9
8.6	3.1	1.1	10.3	4.9	2.2	12.5	8.2	4.0	12.9	8.8	4.3
9.3	3.2	1.2	11.2	5.1	2.2	13.7	8.8	4.3	14.1	9.4	4.6
8.9	3.2	1.1	10.7	5.0	2.2	13.0	8.4	4.0	13.4	9.0	4.3
9.3	3.2	1.2	11.2	5.1	2.2	13.8	8.8	4.2	14.2	9.4	4.6
10.5	3.3	1.2	12.7	5.4	2.3	15.7	9.6	4.7	16.3	10.4	5.1
10.5	3.3	1.2	12.6	5.4	2.3	15.6	9.5	4.7	16.1	10.3	5.1
7.4	3.0	1.1	8.7	4.6	2.0	10.3	7.1	3.4	10.6	7.5	3.5
9.2	3.2	1.1	11.0	5.1	2.2	13.5	8.6	4.2	13.9	9.2	4.5
11.1	3.4	1.2	13.5	5.5	2.4	16.8	10.0	4.8	17.4	10.8	5.4
8.0	3.1	1.1	9.5	4.8	2.1	11.5	7.7	3.7	11.8	8.1	3.9
10.0	3.3	1.2	12.1	5.2	2.3	14.9	9.2	4.5	15.4	9.9	4.8
9.7	3.2	1.2	11.7	5.1	2.2	14.4	9.0	4.3	14.8	9.6	4.7
9.4	3.2	1.2	11.3	5.1	2.2	13.8	8.8	4.3	14.3	9.4	4.6
10.3	3.3	1.2	12.4	5.3	2.3	15.3	9.5	4.6	15.9	10.2	5.1
10.9	3.3	1.2	13.2	5.4	2.3	16.3	9.8	4.8	16.9	10.6	5.2
7.4	3.0	1.1	8.7	4.6	2.0	10.4	7.1	3.4	10.7	7.5	3.6
9.0	3.2	1.1	10.8	5.0	2.2	13.1	8.5	4.1	13.5	9.1	4.4
10.4	3.3	1.2	12.6	5.3	2.3	15.6	9.5	4.6	16.1	10.3	5.0

FLIGHT ALTITUDE = 5,000 FT. COMBINATION: A

SIGMAP = 2.5 SIGMAT = 1.0 SIGMARH = 8.0

TARGET #1 DET	TARGET #1 CLASS (NMI)	TARGET #1 ID	TARGET #2 DET	TARGET #2 CLASS (NMI)	TARGET #2 ID	TARGET #3 DET	TARGET #3 CLASS (NMI)	TARGET #3 ID	TARGET #3 DET	TARGET #3 CLASS (NMI)	TARGET #3 ID
11.6	2.9	1.4	14.3	5.4	2.0	18.0	10.3	4.4	18.7	11.3	5.2
8.7	2.8	1.3	10.4	4.7	2.0	12.7	8.2	3.5	13.1	8.8	4.0
13.3	3.1	1.4	16.6	5.1	2.5	21.3	11.0	4.0	22.2	12.3	4.6
10.6	2.9	1.4	13.0	5.2	2.0	16.2	9.7	4.1	16.7	10.5	4.8
11.1	2.9	1.4	13.7	5.3	2.0	17.1	10.0	4.2	17.7	10.9	5.0
10.6	2.9	1.4	12.9	5.2	2.0	16.1	9.7	4.1	16.7	10.5	4.8
10.5	2.9	1.4	12.9	5.2	2.0	16.0	9.6	4.1	16.6	10.4	4.8
8.5	2.8	1.3	10.1	4.7	1.9	12.2	8.0	3.4	12.6	8.6	3.[illegible]
10.4	2.9	1.4	12.7	5.2	2.0	15.8	9.6	4.0	16.4	10.4	4.7
11.0	2.9	1.4	13.5	5.3	2.0	16.9	9.9	4.2	17.5	10.8	5.0
13.2	3.0	1.4	16.3	5.8	2.1	20.8	11.2	4.8	21.6	12.3	5.9
11.7	3.0	1.4	14.4	5.5	2.0	18.2	10.4	4.5	18.9	11.4	5.4
13.1	3.0	1.4	16.3	5.7	2.1	20.9	11.1	4.8	21.7	12.2	5.9
13.8	3.0	1.4	17.3	5.8	2.1	22.4	11.5	4.9	23.3	12.7	5.9
13.3	3.0	1.4	16.5	5.8	2.1	21.2	11.2	4.9	22.0	12.4	5.9
12.5	3.0	1.4	15.4	5.6	2.1	19.6	10.8	4.7	20.4	11.9	5.7
11.7	3.0	1.4	14.4	5.5	2.0	18.1	10.4	4.5	18.8	11.4	5.4
11.1	2.9	1.4	13.6	5.3	2.0	17.1	10.0	4.3	17.7	10.9	5.1
12.7	3.0	1.4	15.7	5.7	2.1	20.1	10.9	4.7	20.8	12.0	5.8
12.9	3.0	1.4	16.0	5.7	2.1	20.5	11.0	4.8	21.3	12.1	5.8
11.4	2.9	1.4	14.0	5.4	2.0	17.6	10.2	4.4	18.2	11.2	5.2
9.7	2.8	1.4	11.7	5.0	2.0	14.5	9.1	3.8	14.9	9.7	4.4
11.7	2.9	1.4	14.4	5.4	2.0	18.2	10.3	4.4	18.9	11.4	5.3
11.5	2.9	1.4	14.1	5.4	2.0	17.8	10.2	4.3	18.5	11.2	5.1
11.3	2.9	1.4	13.9	5.4	2.0	17.4	10.1	4.3	18.0	11.1	5.1
10.4	2.9	1.4	12.6	5.2	2.0	15.7	9.5	4.1	16.2	10.3	4.8
10.7	2.9	1.4	13.1	5.3	2.0	16.4	9.8	4.2	17.0	10.6	4.9
9.1	2.8	1.3	10.9	4.9	2.0	13.4	8.6	3.7	13.8	9.2	4.2
10.5	2.9	1.4	12.8	5.2	2.0	15.9	9.6	4.1	16.5	10.4	4.8
11.5	2.9	1.4	14.2	5.4	2.0	17.8	10.2	4.4	18.5	11.2	5.2
14.8	3.1	1.4	18.5	5.9	2.1	23.8	11.9	5.3	24.8	13.2	6.1
12.3	3.0	1.4	15.1	5.6	2.1	19.2	10.7	4.6	19.9	11.7	5.6
14.2	3.1	1.4	17.8	5.9	2.1	22.9	11.6	5.1	23.9	12.9	6.0
14.6	3.1	1.4	18.5	5.9	2.1	24.0	11.8	5.1	25.0	13.1	6.0
14.1	3.1	1.4	17.5	5.9	2.1	22.5	11.6	5.1	23.5	12.8	6.0
13.5	3.0	1.4	16.7	5.8	2.1	21.4	11.3	4.9	22.3	12.5	5.9
12.5	3.0	1.4	15.3	5.6	2.1	19.4	10.8	4.7	20.1	11.9	5.7
11.6	3.0	1.4	14.3	5.5	2.0	17.9	10.3	4.4	18.6	11.3	5.3
13.5	3.0	1.4	16.8	5.8	2.1	21.5	11.3	4.9	22.3	12.5	5.9
13.9	3.0	1.4	17.3	5.8	2.1	22.2	11.5	5.0	23.1	12.7	6.0
15.2	3.1	1.4	19.1	6.0	2.1	24.8	12.1	5.4	25.8	13.4	6.2
13.9	3.0	1.4	17.4	5.9	2.1	22.4	11.5	5.0	23.3	12.7	6.0
14.6	3.1	1.4	18.3	5.9	2.1	23.7	11.8	5.2	24.7	13.1	6.1
15.4	3.1	1.4	19.5	6.0	2.1	25.4	12.1	5.3	26.5	13.5	6.2
15.7	3.1	1.4	19.8	6.0	2.1	25.9	12.2	5.5	27.0	13.7	6.2
14.3	3.1	1.4	17.9	5.9	2.1	23.2	11.7	5.1	24.2	13.0	6.0
14.2	3.1	1.4	17.8	5.9	2.1	22.9	11.7	5.1	23.9	12.9	6.0
12.8	3.0	1.4	15.8	5.7	2.1	20.1	11.0	4.7	20.9	12.0	5.8
14.9	3.1	1.4	18.7	5.9	2.1	24.3	11.9	5.3	25.4	13.3	6.1
14.4	3.1	1.4	18.1	5.9	2.1	23.3	11.8	5.2	24.3	13.0	6.1
14.5	3.1	1.4	18.1	5.9	2.1	23.4	11.8	5.2	24.3	13.1	6.1
13.2	3.0	1.4	16.4	5.8	2.1	21.0	11.2	4.9	21.8	12.3	5.9
13.6	3.0	1.4	16.9	5.8	2.1	21.6	11.4	5.0	22.5	12.5	5.9
15.1	3.1	1.4	19.2	5.9	2.1	25.1	12.0	5.3	26.1	13.4	6.1
14.7	3.1	1.4	18.5	5.9	2.1	24.0	11.9	5.2	25.0	13.2	6.1
13.7	3.0	1.4	17.1	5.8	2.1	21.9	11.4	5.0	22.8	12.6	6.0
13.7	3.0	1.4	17.0	5.8	2.1	21.8	11.4	5.0	22.8	12.6	6.0
12.3	3.0	1.4	15.2	5.6	2.1	19.3	10.7	4.6	20.0	11.8	5.6
14.1	3.1	1.4	17.6	5.9	2.1	22.7	11.6	5.1	23.7	12.8	6.0
13.3	3.0	1.4	16.4	5.8	2.1	20.9	11.2	4.9	21.8	12.4	5.9
13.6	3.0	1.4	16.8	5.8	2.1	21.5	11.4	5.0	22.4	12.5	5.9
12.1	3.0	1.4	14.9	5.6	2.1	18.9	10.6	4.6	19.6	11.6	5.5
12.4	3.0	1.4	15.2	5.6	2.1	19.3	10.7	4.7	20.0	11.8	5.7
13.7	3.0	1.4	17.1	5.8	2.1	22.0	11.4	4.9	22.9	12.6	5.9
13.6	3.0	1.4	16.8	5.8	2.1	21.6	11.4	4.9	22.5	12.5	5.9
12.8	3.0	1.4	15.9	5.7	2.1	20.2	11.0	4.8	21.0	12.1	5.8
11.5	2.9	1.4	14.1	5.4	2.0	17.8	10.2	4.4	18.4	11.2	5.2
13.0	3.0	1.4	16.1	5.7	2.1	20.6	11.1	4.8	21.4	12.2	5.9
13.0	3.0	1.4	16.0	5.7	2.1	20.5	11.1	4.8	21.3	12.2	5.8
12.8	3.0	1.4	15.8	5.7	2.1	20.1	10.9	4.7	20.9	12.0	5.8
14.1	3.1	1.4	17.6	5.9	2.1	22.6	11.6	5.1	23.5	12.8	6.0
12.2	3.0	1.4	15.1	5.6	2.1	19.1	10.7	4.6	19.8	11.7	5.6
14.5	3.1	1.4	18.3	5.9	2.1	23.9	11.8	5.1	24.9	13.1	6.0
15.0	3.1	1.4	19.1	5.9	2.1	24.9	11.9	5.2	26.0	13.3	6.1
13.9	3.0	1.4	17.3	5.8	2.1	22.2	11.5	5.0	23.1	12.7	6.0
14.5	3.1	1.4	18.2	5.9	2.1	23.7	11.8	5.1	24.7	13.0	6.0
12.5	3.0	1.4	15.4	5.7	2.1	19.6	10.8	4.7	20.3	11.9	5.7
13.3	3.0	1.4	16.4	5.8	2.1	21.0	11.2	4.9	21.9	12.3	5.9
11.7	3.0	1.4	14.4	5.5	2.0	18.1	10.4	4.5	18.8	11.4	5.3
12.7	3.0	1.4	15.7	5.7	2.1	20.0	10.9	4.7	20.7	12.0	5.8

FLIGHT ALTITUDE = 5,000 FT.   COMBINATION: B

SIGMAP = 2.5 SIGMAT = 2.0 SIGMARH = 8.0

TARGET #1			TARGET #2			TARGET #3			TARGET #4		
OET	CLASS (NMI)	ID	DET	CLASS (NMI)	ID	DET	CLASS (NMI)	IO	OET	CLASS (NMI)	IO
12.2	3.0	1.4	15.1	5.5	2.0	19.2	10.6	4.5	19.9	11.7	5.5
8.5	2.8	1.3	10.1	4.7	1.9	12.3	8.0	3.4	12.7	8.6	3.9
10.9	2.9	1.4	13.4	5.3	2.0	16.8	9.9	4.2	17.4	10.8	4.9
10.4	2.9	1.4	12.7	5.1	2.0	15.8	9.5	4.0	16.3	10.3	4.7
11.0	2.9	1.4	13.5	5.3	2.0	16.9	9.9	4.2	17.5	10.8	5.0
10.7	2.9	1.4	13.1	5.2	2.0	16.4	9.7	4.1	17.0	10.6	4.9
11.0	2.9	1.4	13.5	5.3	2.0	16.9	9.9	4.2	17.5	10.8	5.0
8.3	2.7	1.3	9.9	4.6	1.9	11.9	7.9	3.4	12.3	8.4	3.8
10.3	2.9	1.4	12.6	5.1	2.0	15.6	9.5	4.0	16.2	10.3	4.7
11.2	2.9	1.4	13.7	5.3	2.0	17.2	10.0	4.2	17.8	11.0	5.0
13.6	3.0	1.4	16.9	5.8	2.1	21.6	11.4	5.0	22.5	12.5	5.9
11.5	2.9	1.4	14.1	5.4	2.0	17.7	10.2	4.4	18.4	11.2	5.2
13.0	3.0	1.4	16.1	5.7	2.1	20.6	11.1	4.8	21.5	12.2	5.8
13.6	3.0	1.4	17.0	5.8	2.1	21.9	11.3	4.9	22.8	12.5	5.9
13.3	3.0	1.4	16.5	5.8	2.1	21.1	11.2	4.9	22.0	12.4	5.9
12.5	3.0	1.4	15.4	5.6	2.1	19.7	10.8	4.7	20.5	11.9	5.7
12.1	3.0	1.4	14.8	5.6	2.1	18.8	10.6	4.6	19.5	11.6	5.5
11.0	2.9	1.4	13.5	5.3	2.0	16.9	9.9	4.3	17.5	10.8	5.0
12.6	3.0	1.4	15.6	5.6	2.1	19.9	10.9	4.7	20.6	11.9	5.7
13.1	3.0	1.4	16.2	5.7	2.1	20.7	11.1	4.8	21.6	12.2	5.9
12.0	3.0	1.4	14.7	5.5	2.0	18.6	10.5	4.5	19.3	11.5	5.4
9.5	2.8	1.4	11.4	4.9	2.0	14.0	8.9	3.8	14.5	9.5	4.3
11.5	2.9	1.4	14.2	5.4	2.0	17.9	10.3	4.4	18.6	11.2	5.2
11.3	2.9	1.4	13.8	5.3	2.0	17.4	10.1	4.3	18.0	11.0	5.1
11.2	2.9	1.4	13.7	5.4	2.0	17.2	10.1	4.3	17.8	11.0	5.1
10.6	2.9	1.4	12.9	5.2	2.0	16.0	9.7	4.1	16.6	10.5	4.8
11.1	2.9	1.4	13.6	5.3	2.0	17.0	10.0	4.3	17.6	10.9	5.0
8.9	2.8	1.3	10.6	4.8	2.0	13.0	8.4	3.6	13.4	9.0	4.1
10.4	2.9	1.4	12.7	5.2	2.0	15.8	9.6	4.1	16.3	10.4	4.8
11.6	2.9	1.4	14.3	5.4	2.0	18.0	10.3	4.4	18.7	11.3	5.2
15.3	3.1	1.4	19.2	6.0	2.1	24.8	12.1	5.4	25.8	13.5	6.2
12.0	3.0	1.4	14.8	5.5	2.0	18.7	10.5	4.5	19.4	11.6	5.5
14.0	3.0	1.4	17.5	5.9	2.1	22.6	11.6	5.0	23.5	12.8	6.0
14.4	3.1	1.4	18.2	5.9	2.1	23.5	11.7	5.1	24.5	13.0	6.0
14.0	3.1	1.4	17.4	5.9	2.1	22.3	11.6	5.0	23.2	12.7	6.0
13.6	3.0	1.4	16.9	5.8	2.1	21.6	11.4	5.0	22.5	12.5	5.9
12.8	3.0	1.4	15.8	5.7	2.1	20.1	11.0	4.8	20.8	12.1	5.8
11.4	2.9	1.4	14.0	5.4	2.0	17.6	10.2	4.4	18.2	11.1	5.2
13.4	3.0	1.4	16.7	5.8	2.1	21.3	11.3	4.9	22.2	12.4	5.9
14.0	3.1	1.4	17.5	5.9	2.1	22.4	11.6	5.1	23.4	12.8	6.0
15.6	3.1	1.4	19.7	6.0	2.1	25.6	12.2	5.4	26.7	13.7	6.2
13.7	3.0	1.4	17.1	5.8	2.1	22.0	11.5	5.0	22.9	12.6	6.0
14.5	3.1	1.4	18.2	5.9	2.1	23.5	11.8	5.2	24.5	13.1	6.1
15.1	3.1	1.4	19.1	5.9	2.1	24.9	12.0	5.3	26.0	13.4	6.1
14.4	3.1	1.4	18.1	5.9	2.1	23.3	11.8	5.2	24.3	13.0	6.1
15.8	3.1	1.4	20.0	6.0	2.1	26.0	12.3	5.5	27.2	13.7	6.2
14.3	3.1	1.4	18.0	5.9	2.1	23.2	11.7	5.1	24.2	13.0	6.0
14.5	3.1	1.4	18.2	5.9	2.1	23.5	11.8	5.2	24.5	13.1	6.1
12.7	3.0	1.4	15.6	5.7	2.1	19.9	10.9	4.7	20.7	12.0	5.8
14.8	3.1	1.4	18.7	5.9	2.1	24.2	11.9	5.3	25.3	13.2	6.1
14.9	3.1	1.4	18.8	6.0	2.1	24.2	12.0	5.3	25.3	13.3	6.1
13.0	3.0	1.4	16.1	5.7	2.1	20.6	11.1	4.8	21.4	12.2	5.8
13.5	3.0	1.4	16.8	5.8	2.1	21.5	11.3	4.9	22.4	12.5	5.9
14.9	3.1	1.4	18.8	5.9	2.1	24.5	11.9	5.2	25.6	13.3	6.1
14.8	3.1	1.4	18.6	5.9	2.1	24.1	11.9	5.2	25.1	13.2	6.1
13.8	3.0	1.4	17.2	5.8	2.1	22.1	11.5	5.0	23.0	12.7	6.0
14.0	3.1	1.4	17.4	5.9	2.1	22.4	11.6	5.1	23.4	12.8	6.0
12.2	3.0	1.4	15.0	5.6	2.1	19.0	10.6	4.6	19.8	11.7	5.5
14.0	3.1	1.4	17.5	5.9	2.1	22.5	11.6	5.1	23.5	12.8	6.0
13.3	3.0	1.4	16.4	5.8	2.1	21.0	11.2	4.9	21.8	12.4	5.9
14.0	3.1	1.4	17.5	5.9	2.1	22.4	11.6	5.1	23.3	12.8	6.0
11.8	3.0	1.4	14.6	5.5	2.0	18.4	10.4	4.5	19.1	11.5	5.4
12.2	3.0	1.4	15.0	5.6	2.1	19.1	10.7	4.6	19.8	11.7	5.6
13.4	3.0	1.4	16.8	5.8	2.1	21.5	11.3	4.9	22.4	12.4	5.9
13.5	3.0	1.4	16.8	5.8	2.1	21.5	11.3	4.9	22.4	12.5	5.9
12.9	3.0	1.4	15.9	5.7	2.1	20.3	11.0	4.8	21.1	12.1	5.8
13.2	3.0	1.4	16.3	5.8	2.1	20.8	11.2	4.8	21.7	12.3	5.9
11.4	2.9	1.4	14.0	5.4	2.0	17.6	10.2	4.4	18.2	11.1	5.2
12.9	3.0	1.4	16.0	5.7	2.1	20.5	11.0	4.8	21.3	12.1	5.8
13.1	3.0	1.4	16.2	5.7	2.1	20.7	11.1	4.8	21.5	12.3	5.9
14.5	3.1	1.4	18.2	5.9	2.1	23.5	11.8	5.2	24.4	13.1	6.1
11.9	3.0	1.4	14.6	5.5	2.0	18.5	10.5	4.5	19.2	11.5	5.4
14.4	3.1	1.4	18.1	5.9	2.1	23.5	11.7	5.1	24.5	13.0	6.0
14.8	3.1	1.4	18.7	5.9	2.1	24.4	11.8	5.1	25.4	13.2	6.1
13.8	3.0	1.4	17.2	5.8	2.1	22.0	11.5	5.0	23.0	12.6	6.0
12.5	3.0	1.4	15.4	5.6	2.1	19.6	10.8	4.7	20.3	11.9	5.7
13.7	3.0	1.4	17.0	5.8	2.1	21.9	11.4	5.0	22.8	12.6	5.9
11.6	3.0	1.4	14.2	5.5	2.0	17.9	10.3	4.4	18.6	11.3	5.3
12.7	3.0	1.4	15.7	5.7	2.1	20.0	10.9	4.7	20.8	12.0	5.8
14.7	3.1	1.4	18.6	5.9	2.1	24.1	11.9	5.2	25.2	13.2	6.1

FLIGHT ALTITUDE = 5,000 FT. COMBINATION: C

SIGMAP = 2.5 SIGMAT = 4.0 SIGMARH = 8.0

TARGET #1			TARGET #2			TARGET #3			TARGET #4		
DET	CLASS (NMI)	ID	DET	CLASS (NMI)	ID	DET	CLASS (NMI)	ID	DET	CLASS (NMI)	ID
13.4	3.0	1.4	16.7	5.8	2.1	21.4	11.3	4.8	22.3	12.4	5.9
8.0	2.7	1.3	9.5	4.5	1.9	11.4	7.6	3.3	11.8	8.1	3.6
10.6	2.9	1.4	13.0	5.2	2.0	16.2	9.7	4.1	16.7	10.5	4.8
10.0	2.8	1.4	12.1	5.0	2.0	15.0	9.3	3.9	15.5	10.0	4.5
10.7	2.9	1.4	13.1	5.2	2.0	16.4	9.8	4.1	17.0	10.6	4.8
10.8	2.9	1.4	13.3	5.3	2.0	16.6	9.8	4.2	17.2	10.7	4.9
11.9	3.0	1.4	14.6	5.5	2.0	18.5	10.4	4.4	19.2	11.5	5.3
7.9	2.7	1.3	9.3	4.5	1.9	11.1	7.5	3.2	11.5	7.9	3.6
10.1	2.9	1.4	12.2	5.1	2.0	15.1	9.3	3.9	15.6	10.0	4.6
11.3	2.9	1.4	14.0	5.4	2.0	17.5	10.1	4.3	18.2	11.1	5.1
14.4	3.1	1.4	18.0	5.9	2.1	23.3	11.7	5.2	24.2	13.0	6.1
10.0	2.9	1.4	13.3	5.3	2.0	16.6	9.8	4.2	17.2	10.7	5.0
12.7	3.0	1.4	15.8	5.7	2.1	20.1	10.9	4.7	20.9	12.0	5.7
13.1	3.0	1.4	16.3	5.7	2.1	20.9	11.1	4.7	21.8	12.2	5.8
13.2	3.0	1.4	16.4	5.8	2.0	20.9	11.2	4.8	21.8	12.3	5.9
12.4	3.0	1.4	15.3	5.6	2.1	19.5	10.7	4.6	20.3	11.8	5.6
12.8	3.0	1.4	15.7	5.7	2.1	20.0	11.0	4.8	20.7	12.0	5.8
10.7	2.9	1.4	13.1	5.3	2.0	16.3	9.8	4.2	16.9	10.6	4.9
12.3	3.0	1.4	15.2	5.6	2.1	19.3	10.7	4.6	20.1	11.8	5.6
13.3	3.0	1.4	16.5	5.8	2.1	21.0	11.2	4.9	21.9	12.3	5.9
13.0	3.0	1.4	16.1	5.7	2.1	20.5	11.1	4.8	21.3	12.2	5.8
9.0	2.8	1.3	10.7	4.8	2.0	13.1	8.4	3.6	13.5	9.1	4.1
11.2	2.9	1.4	13.8	5.3	2.0	17.3	10.1	4.3	17.9	11.0	5.1
10.8	2.9	1.4	13.2	5.2	2.0	16.5	9.8	4.1	17.1	10.7	4.9
11.0	2.9	1.4	13.5	5.3	2.0	16.8	9.9	4.2	17.4	10.8	5.0
10.8	2.9	1.4	13.1	5.3	2.0	16.4	9.8	4.2	17.0	10.6	4.9
11.6	3.0	1.4	14.3	5.4	2.0	18.0	10.3	4.4	18.7	11.3	5.3
8.4	2.7	1.3	9.9	4.6	1.9	12.0	7.9	3.4	12.4	8.4	3.8
10.2	2.9	1.4	12.4	5.1	2.0	15.3	9.4	4.0	15.9	10.2	4.7
11.7	2.9	1.4	14.4	5.4	2.0	18.1	10.3	4.4	18.8	11.3	5.3
16.3	3.1	1.4	20.6	6.1	2.1	26.7	12.5	5.6	27.9	14.0	6.3
11.4	2.9	1.4	14.0	5.4	2.0	17.6	10.2	4.4	18.3	11.2	5.2
13.7	3.0	1.4	17.0	5.8	2.1	21.9	11.4	4.9	22.8	12.6	5.9
14.0	3.0	1.4	17.5	5.8	2.1	22.6	11.5	5.0	23.5	12.7	6.0
13.7	3.0	1.4	17.0	5.8	2.1	21.7	11.4	5.0	22.6	12.6	6.0
13.6	3.0	1.4	16.9	5.8	2.1	21.7	11.4	5.0	22.6	12.5	5.9
13.5	3.0	1.4	16.7	5.8	2.1	21.3	11.4	5.0	22.1	12.5	5.9
10.9	2.9	1.4	13.3	5.3	2.0	16.7	9.9	4.2	17.3	10.8	5.0
13.2	3.0	1.4	16.4	5.8	2.1	20.9	11.2	4.9	21.7	12.3	5.9
14.2	3.1	1.4	17.7	5.9	2.1	22.8	11.6	5.1	23.7	12.9	6.0
16.4	3.1	1.4	20.8	6.1	2.1	27.2	12.5	5.6	28.4	14.0	6.3
13.3	3.0	1.4	16.5	5.8	2.1	21.1	11.2	4.9	21.9	12.3	5.9
14.3	3.1	1.4	17.9	5.9	2.1	23.1	11.7	5.1	24.1	12.9	6.0
14.6	3.1	1.4	18.4	5.9	2.1	23.8	11.8	5.2	24.8	13.1	6.1
15.9	3.1	1.4	20.2	6.0	2.1	26.3	12.3	5.5	27.5	13.8	6.2
14.2	3.1	1.4	17.7	5.9	2.1	23.0	11.6	5.1	23.9	12.9	6.0
15.0	3.1	1.4	18.9	6.0	2.1	24.5	12.0	5.3	25.5	13.3	6.1
12.3	3.0	1.4	15.1	5.6	2.1	19.2	10.7	4.6	20.0	11.8	5.6
14.7	3.1	1.4	18.4	5.9	2.1	23.9	11.8	5.2	24.9	13.1	6.1
14.4	3.1	1.4	17.9	5.9	2.1	23.1	11.7	5.1	24.1	13.0	6.0
15.7	3.1	1.4	19.9	6.0	2.1	25.8	12.3	5.5	26.9	13.7	6.2
12.5	3.0	1.4	15.4	5.6	2.1	19.6	10.8	4.7	20.4	11.9	5.7
13.3	3.0	1.4	16.5	5.8	2.1	21.1	11.2	4.9	22.0	12.4	5.9
14.4	3.1	1.4	18.1	5.9	2.1	23.5	11.7	5.1	24.4	13.0	6.0
14.8	3.1	1.4	18.6	5.9	2.1	24.1	11.9	5.3	25.2	13.2	6.1
13.8	3.8	1.4	17.2	5.8	2.1	22.1	11.5	5.0	23.1	12.6	6.0
14.5	3.1	1.4	18.2	5.9	2.1	23.5	11.8	5.2	24.5	13.1	6.1
11.8	3.0	1.4	14.5	5.5	2.0	18.3	10.4	4.5	18.9	11.4	5.4
13.7	3.0	1.4	17.1	5.8	2.1	22.0	11.5	5.0	22.9	12.6	6.0
13.2	3.0	1.4	16.3	5.8	2.1	20.7	11.2	4.9	21.6	12.3	5.9
14.8	3.1	1.4	18.6	5.9	2.1	24.1	11.9	5.3	25.1	13.3	6.1
11.2	2.9	1.4	13.8	5.4	2.0	17.3	10.1	4.3	17.9	11.0	5.1
12.0	3.0	1.4	14.7	5.5	2.1	18.6	10.5	4.6	19.3	11.6	5.5
13.0	3.0	1.4	16.1	5.7	2.1	20.6	11.0	4.7	21.5	12.2	5.8
13.4	3.0	1.4	16.6	5.8	2.1	21.2	11.3	4.9	22.1	12.4	5.9
12.8	3.0	1.4	15.8	5.7	2.1	20.2	10.9	4.7	21.0	12.0	5.8
13.9	3.1	1.4	17.4	5.9	2.1	22.3	11.5	5.1	23.2	12.7	6.0
11.1	2.9	1.4	13.6	5.3	2.0	17.0	10.0	4.3	17.6	10.9	5.1
12.7	3.0	1.4	15.7	5.7	2.1	20.0	10.9	4.7	20.7	12.0	5.8
13.3	3.0	1.4	16.5	5.8	2.1	21.1	11.2	4.9	21.9	12.4	5.9
15.3	3.1	1.4	19.3	6.0	2.1	25.0	12.1	5.4	26.1	13.5	6.2
11.2	2.9	1.4	13.7	5.4	2.0	17.2	10.1	4.3	17.9	11.0	5.1
14.0	3.0	1.4	17.5	5.8	2.1	22.7	11.5	5.0	23.7	12.7	6.0
14.3	3.0	1.4	18.0	5.9	2.1	23.3	11.6	5.0	24.3	12.9	6.0
13.6	3.0	1.4	16.9	5.8	2.1	21.6	11.4	4.9	22.5	12.5	5.9
12.3	3.0	1.4	15.1	5.6	2.1	19.2	10.7	4.6	20.0	11.8	5.6
14.5	3.1	1.4	18.2	5.9	2.1	23.5	11.8	5.2	24.5	13.1	6.1
11.3	2.9	1.4	13.8	5.4	2.0	17.3	10.1	4.3	18.0	11.0	5.2
12.5	3.0	1.4	15.4	5.6	2.1	19.6	10.8	4.7	20.3	11.9	5.7
15.1	3.1	1.4	19.1	5.9	2.1	24.8	12.0	5.3	25.9	13.4	6.1

FLIGHT ALTITUDE = 5,000 FT.   COMBINATION: D

SIGMAP = 1.5 SIGMAT = 1.0 SIGMARH = 8.0

TARGET #1			TARGET #2			TARGET #3			TARGET #4		
DET	CLASS (NMI)	ID	DET	CLASS (NMI)	ID	DET	CLASS (NMI)	ID	DET	CLASS (NMI)	ID
11.5	2.9	1.4	14.2	5.4	2.0	17.8	10.2	4.3	18.5	11.2	5.2
8.8	2.8	1.3	10.5	4.8	2.0	12.8	8.3	3.5	13.2	8.9	4.0
11.0	2.9	1.4	13.5	5.3	2.0	16.9	9.9	4.2	17.5	10.8	4.9
10.7	2.9	1.4	13.1	5.2	2.0	16.3	9.7	4.1	16.9	10.6	4.8
11.1	2.9	1.4	13.6	5.3	2.0	17.1	10.0	4.2	17.7	10.9	5.0
10.5	2.9	1.4	12.8	5.2	2.0	16.0	9.6	4.1	16.6	10.4	4.8
10.5	2.9	1.4	12.8	5.2	2.0	15.9	9.6	4.0	16.5	10.4	4.7
8.5	2.8	1.3	10.2	4.7	1.9	12.3	8.1	3.4	12.7	8.6	3.9
10.4	2.9	1.4	12.7	5.2	2.0	15.8	9.5	4.0	16.3	10.3	4.7
10.9	2.9	1.4	13.3	5.3	2.0	16.7	9.8	4.2	17.3	10.7	4.9
13.1	3.0	1.4	16.3	5.7	2.1	20.8	11.1	4.8	21.6	12.3	5.9
11.8	3.0	1.4	14.5	5.5	2.0	18.3	10.4	4.5	19.0	11.4	5.4
13.1	3.0	1.4	16.3	5.7	2.1	20.9	11.1	4.8	21.7	12.2	5.8
13.9	3.0	1.4	17.4	5.8	2.1	22.5	11.5	4.9	23.4	12.7	5.9
13.3	3.0	1.4	16.5	5.8	2.1	21.1	11.2	4.9	22.0	12.4	5.9
12.9	3.0	1.4	16.0	5.7	2.1	20.4	11.0	4.8	21.2	12.1	5.8
12.4	3.0	1.4	15.3	5.6	2.1	19.5	10.8	4.6	20.3	11.8	5.6
11.8	3.0	1.4	14.5	5.5	2.0	18.2	10.4	4.5	18.9	11.4	5.4
11.2	2.9	1.4	13.7	5.4	2.0	17.2	10.0	4.3	17.8	11.0	5.1
12.7	3.0	1.4	15.7	5.7	2.1	20.0	10.9	4.7	20.8	12.0	5.7
11.3	2.9	1.4	13.9	5.4	2.0	17.4	10.1	4.3	18.0	11.1	5.2
9.8	2.8	1.4	11.8	5.0	2.0	14.6	9.1	3.9	15.0	9.8	4.5
11.6	2.9	1.4	14.3	5.4	2.0	18.0	10.3	4.4	18.7	11.3	5.2
11.6	2.9	1.4	14.3	5.4	2.0	18.0	10.3	4.3	18.6	11.3	5.2
11.3	2.9	1.4	13.9	5.4	2.0	17.5	10.1	4.3	18.1	11.1	5.2
10.3	2.9	1.4	12.6	5.2	2.0	15.6	9.5	4.1	16.1	10.3	4.7
10.8	2.9	1.4	13.2	5.3	2.0	16.4	9.8	4.2	17.0	10.7	4.9
9.2	2.8	1.3	11.0	4.9	2.0	13.5	8.6	3.7	14.0	9.3	4.2
10.6	2.9	1.4	12.9	5.2	2.0	16.0	9.6	4.1	16.6	10.5	4.8
11.3	2.9	1.4	14.0	5.4	2.0	17.5	10.1	4.3	18.2	11.1	5.1
14.6	3.1	1.4	18.3	5.9	2.1	23.6	11.9	5.2	24.5	13.1	6.1
12.3	3.0	1.4	15.2	5.6	2.1	19.2	10.7	4.6	20.0	11.8	5.6
14.1	3.1	1.4	17.6	5.9	2.1	22.7	11.6	5.1	23.6	12.8	6.0
14.7	3.1	1.4	18.6	5.9	2.1	24.1	11.8	5.2	25.1	13.2	6.1
14.0	3.1	1.4	17.5	5.9	2.1	22.4	11.6	5.1	23.4	12.8	6.0
13.4	3.0	1.4	16.6	5.8	2.1	21.2	11.3	4.9	22.1	12.4	5.9
12.4	3.0	1.4	15.3	5.6	2.1	19.3	10.8	4.7	20.1	11.8	5.7
11.7	3.0	1.4	14.3	5.5	2.0	18.1	10.3	4.4	18.7	11.3	5.3
13.5	3.0	1.4	16.7	5.8	2.1	21.4	11.3	4.9	22.3	12.5	5.9
13.7	3.0	1.4	17.1	5.8	2.1	21.9	11.5	5.0	22.8	12.6	6.0
15.1	3.1	1.4	19.0	6.0	2.1	24.6	12.0	5.3	25.6	13.4	6.1
13.9	3.0	1.4	17.3	5.9	2.1	22.3	11.5	5.0	23.3	12.7	6.0
14.6	3.1	1.4	18.3	5.9	2.1	23.7	11.8	5.2	24.7	13.1	6.1
15.4	3.1	1.4	19.6	6.0	2.1	25.5	12.1	5.3	26.6	13.5	6.2
15.7	3.1	1.4	19.8	6.0	2.1	25.8	12.2	5.4	26.9	13.7	6.2
14.3	3.1	1.4	17.9	5.9	2.1	23.1	11.7	5.1	24.1	13.0	6.0
14.3	3.1	1.4	17.9	5.9	2.1	23.1	11.7	5.1	24.1	12.9	6.0
14.2	3.1	1.4	17.7	5.9	2.1	22.8	11.6	5.1	23.8	12.9	6.0
12.9	3.0	1.4	15.9	5.7	2.1	20.3	11.0	4.8	21.1	12.1	5.8
14.8	3.1	1.4	18.7	5.9	2.1	24.3	11.9	5.3	25.3	13.3	6.1
14.4	3.1	1.4	18.0	5.9	2.1	23.2	11.8	5.2	24.2	13.0	6.1
13.3	3.0	1.4	16.5	5.8	2.1	21.1	11.2	4.9	21.9	12.3	5.9
13.6	3.0	1.4	16.8	5.8	2.1	21.6	11.4	5.0	22.4	12.5	5.9
13.2	3.0	1.4	16.3	5.8	2.1	20.7	11.2	4.9	21.6	12.3	5.9
15.2	3.1	1.4	19.3	6.0	2.1	25.2	12.0	5.3	26.2	13.4	6.1
14.7	3.1	1.4	18.5	5.9	2.1	24.0	11.9	5.2	25.0	13.2	6.1
13.7	3.0	1.4	17.1	5.8	2.1	21.9	11.4	5.0	22.8	12.6	6.0
13.6	3.0	1.4	17.0	5.8	2.1	21.7	11.4	5.0	22.6	12.6	5.9
12.4	3.0	1.4	15.3	5.6	2.1	19.4	10.7	4.6	20.2	11.8	5.6
14.1	3.1	1.4	17.6	5.9	2.1	22.7	11.6	5.1	23.6	12.8	6.0
13.6	3.0	1.4	16.9	5.8	2.1	21.6	11.4	5.0	22.5	12.6	5.9
12.1	3.0	1.4	14.9	5.6	2.1	18.9	10.6	4.6	19.7	11.7	5.5
12.3	3.0	1.4	15.1	5.6	2.1	19.1	10.7	4.6	19.8	11.7	5.6
13.7	3.0	1.4	17.2	5.8	2.1	22.1	11.4	4.9	23.0	12.6	5.9
13.5	3.0	1.4	16.8	5.8	2.1	21.5	11.3	4.9	22.4	12.5	5.9
12.9	3.0	1.4	16.0	5.7	2.1	20.4	11.0	4.8	21.2	12.1	5.8
12.8	3.0	1.4	15.8	5.7	2.1	20.2	11.0	4.7	21.0	12.1	5.8
11.6	3.0	1.4	14.2	5.4	2.0	17.9	10.3	4.4	18.6	11.3	5.3
13.0	3.0	1.4	16.1	5.7	2.1	20.6	11.1	4.8	21.4	12.2	5.8
13.0	3.0	1.4	16.1	5.7	2.1	20.5	11.1	4.8	21.3	12.2	5.8
14.1	3.1	1.4	17.6	5.9	2.1	22.7	11.6	5.1	23.6	12.9	6.0
12.3	3.0	1.4	15.1	5.6	2.1	19.2	10.7	4.6	19.9	11.7	5.6
14.4	3.1	1.4	18.1	5.9	2.1	23.6	11.7	5.1	24.6	13.0	6.0
15.1	3.1	1.4	19.2	5.9	2.1	25.0	12.0	5.2	26.1	13.3	6.1
13.8	3.0	1.4	17.2	5.8	2.1	22.1	11.5	5.0	23.0	12.7	6.0
12.6	3.0	1.4	15.5	5.7	2.1	19.7	10.9	4.7	20.5	11.9	5.8
13.3	3.0	1.4	16.6	5.8	2.1	21.2	11.2	4.9	22.1	12.4	5.9
11.7	3.0	1.4	14.4	5.5	2.0	18.2	10.4	4.5	18.9	11.4	5.4
12.8	3.0	1.4	15.8	5.7	2.1	20.1	11.0	4.8	20.9	12.1	5.8
14.5	3.1	1.4	18.2	5.9	2.1	23.6	11.7	5.1	24.6	13.0	6.0

FLIGHT ALTITUDE = 5,000 FT.   COMBINATION: E

SIGMAP = 1.5 SIGMAT = 2.0 SIGMARH = 8.0

TARGET #1			TARGET #2			TARGET #3			TARGET #4		
DET	CLASS (NMI)	ID	DET	CLASS (NMI)	ID	DET	CLASS (NMI)	ID	DET	CLASS (NMI)	ID
12.1	3.0	1.4	14.9	5.5	2.0	18.9	10.6	4.5	19.7	11.6	5.4
8.5	2.8	1.3	10.2	4.7	1.9	12.4	8.1	3.5	12.7	8.6	3.9
10.8	2.9	1.4	13.3	5.2	2.0	16.6	9.8	4.1	17.2	10.7	4.9
10.5	2.9	1.4	12.8	5.2	2.0	15.9	9.6	4.0	16.5	10.4	4.7
11.0	2.9	1.4	13.5	5.3	2.0	16.9	9.9	4.2	17.5	10.8	5.0
10.7	2.9	1.4	13.0	5.2	2.0	16.3	9.7	4.1	16.9	10.6	4.8
10.9	2.9	1.4	13.4	5.3	2.0	16.8	9.9	4.2	17.4	10.8	4.9
8.4	2.7	1.3	9.9	4.6	1.9	12.1	7.9	3.4	12.4	8.5	3.8
10.3	2.9	1.4	12.5	5.1	2.0	15.6	9.5	4.0	16.1	10.2	4.7
11.0	2.9	1.4	13.5	5.3	2.0	16.9	9.9	4.2	17.6	10.8	5.0
13.6	3.0	1.4	16.9	5.8	2.1	21.6	11.4	5.0	22.5	12.5	5.9
11.5	2.9	1.4	14.2	5.4	2.0	17.8	10.2	4.4	18.5	11.2	5.3
13.0	3.0	1.4	16.1	5.7	2.1	20.6	11.0	4.8	21.5	12.2	5.8
13.6	3.0	1.4	17.1	5.8	2.1	22.0	11.4	4.9	22.9	12.5	5.9
13.3	3.0	1.4	16.5	5.8	2.1	21.1	11.2	4.9	21.9	12.3	5.9
12.5	3.0	1.4	15.4	5.6	2.1	19.6	10.8	4.6	20.4	11.9	5.7
12.1	3.0	1.4	14.9	5.6	2.1	18.9	10.6	4.6	19.6	11.7	5.6
11.1	2.9	1.4	13.6	5.3	2.0	17.1	10.0	4.3	17.7	10.9	5.1
12.6	3.0	1.4	15.5	5.6	2.1	19.8	10.8	4.7	20.6	11.9	5.7
13.0	3.0	1.4	16.2	5.7	2.1	20.7	11.1	4.8	21.5	12.2	5.8
11.8	3.0	1.4	14.6	5.5	2.0	18.4	10.4	4.5	19.0	11.5	5.4
9.5	2.8	1.4	11.5	5.0	2.0	14.1	8.9	3.8	14.6	9.6	4.4
11.4	2.9	1.4	14.1	5.4	2.0	17.7	10.2	4.3	18.4	11.2	5.2
11.4	2.9	1.4	14.0	5.4	2.0	17.6	10.1	4.3	18.2	11.1	5.1
11.2	2.9	1.4	13.8	5.4	2.0	17.3	10.1	4.3	17.9	11.0	5.1
10.5	2.9	1.4	12.8	5.2	2.0	15.9	9.6	4.1	16.5	10.4	4.8
11.2	2.9	1.4	13.7	5.3	2.0	17.1	10.0	4.3	17.8	11.0	5.1
9.0	2.8	1.3	10.7	4.8	2.0	13.1	8.5	3.6	13.6	9.1	4.1
10.5	2.9	1.4	12.7	5.2	2.0	15.8	9.6	4.1	16.4	10.4	4.8
11.4	2.9	1.4	14.1	5.4	2.0	17.7	10.2	4.3	18.3	11.2	5.2
15.2	3.1	1.4	19.0	6.0	2.1	24.6	12.1	5.4	25.6	13.4	6.2
12.1	3.0	1.4	14.8	5.5	2.1	18.8	10.6	4.6	19.5	11.6	5.5
13.9	3.0	1.4	17.4	5.8	2.1	22.3	11.5	5.0	23.3	12.7	6.0
14.5	3.1	1.4	18.3	5.9	2.1	23.7	11.7	5.1	24.7	13.0	6.0
13.9	3.0	1.4	17.3	5.9	2.1	22.2	11.5	5.0	23.1	12.7	6.0
13.5	3.0	1.4	16.8	5.8	2.1	21.5	11.3	4.9	22.3	12.5	5.9
12.8	3.0	1.4	15.7	5.7	2.1	20.0	11.0	4.8	20.7	12.1	5.8
11.5	2.9	1.4	14.1	5.4	2.0	17.7	10.2	4.4	18.4	11.2	5.3
13.4	3.0	1.4	16.6	5.8	2.1	21.2	11.3	4.9	22.1	12.4	5.9
13.9	3.0	1.4	17.3	5.8	2.1	22.2	11.5	5.0	23.1	12.7	6.0
15.6	3.1	1.4	19.7	6.0	2.1	25.6	12.2	5.4	26.7	13.7	6.2
13.7	3.0	1.4	17.1	5.8	2.1	22.0	11.5	5.0	22.9	12.6	6.0
14.5	3.1	1.4	18.2	5.9	2.1	23.5	11.8	5.2	24.5	13.1	6.1
15.1	3.1	1.4	19.1	5.9	2.1	24.9	12.0	5.3	26.0	13.4	6.1
15.8	3.1	1.4	20.0	6.0	2.1	26.0	12.3	5.5	27.2	13.7	6.2
14.3	3.1	1.4	18.0	5.9	2.1	23.2	11.7	5.1	24.2	13.0	6.0
14.5	3.1	1.4	18.2	5.9	2.1	23.5	11.8	5.2	24.5	13.1	6.1
12.7	3.0	1.4	15.6	5.7	2.1	19.9	10.9	4.7	20.7	12.0	5.8
14.8	3.1	1.4	18.7	5.9	2.1	24.2	11.9	5.3	25.3	13.2	6.1
14.4	3.1	1.4	18.1	5.9	2.1	23.3	11.8	5.2	24.3	13.0	6.1
14.8	3.1	1.4	18.6	5.9	2.1	24.0	11.9	5.3	25.0	13.2	6.1
13.1	3.0	1.4	16.2	5.7	2.1	20.7	11.1	4.8	21.5	12.2	5.9
13.5	3.0	1.4	16.7	5.8	2.1	21.4	11.3	4.9	22.3	12.5	5.9
14.9	3.1	1.4	18.9	5.9	2.1	24.6	11.9	5.2	25.7	13.3	6.1
14.8	3.1	1.4	18.6	5.9	2.1	24.1	11.9	5.3	25.1	13.2	6.1
13.8	3.0	1.4	17.2	5.8	2.1	22.1	11.5	5.0	23.0	12.7	6.0
13.9	3.0	1.4	17.4	5.9	2.1	22.3	11.5	5.0	23.2	12.7	6.0
12.3	3.0	1.4	15.1	5.6	2.1	19.2	10.7	4.6	19.9	11.7	5.6
14.0	3.0	1.4	17.4	5.9	2.1	22.5	11.6	5.0	23.4	12.8	6.0
13.2	3.0	1.4	16.3	5.8	2.1	20.8	11.2	4.9	21.6	12.3	5.9
14.1	3.1	1.4	17.5	5.9	2.1	22.5	11.6	5.1	23.5	12.8	6.0
11.9	3.0	1.4	14.6	5.5	2.0	18.5	10.5	4.5	19.2	11.5	5.4
12.2	3.0	1.4	14.9	5.6	2.1	18.9	10.6	4.6	19.6	11.7	5.6
13.5	3.0	1.4	16.8	5.8	2.1	21.6	11.3	4.9	22.5	12.5	5.9
13.5	3.0	1.4	16.8	5.8	2.1	21.5	11.3	4.9	22.3	12.5	5.9
12.9	3.0	1.4	16.0	5.7	2.1	20.5	11.0	4.8	21.3	12.1	5.8
13.2	3.0	1.4	16.4	5.8	2.1	20.9	11.2	4.9	21.8	12.3	5.9
11.5	2.9	1.4	14.1	5.4	2.0	17.7	10.2	4.4	18.4	11.2	5.2
12.9	3.0	1.4	16.0	5.7	2.1	20.4	11.0	4.8	21.2	12.1	5.8
13.1	3.0	1.4	16.2	5.7	2.1	20.7	11.1	4.8	21.6	12.3	5.9
14.6	3.1	1.4	18.3	5.9	2.1	23.6	11.8	5.2	24.6	13.1	6.1
12.0	3.0	1.4	14.7	5.5	2.0	18.6	10.5	4.5	19.3	11.5	5.4
14.2	3.0	1.4	17.9	5.9	2.1	23.2	11.6	5.1	24.2	12.9	6.0
14.8	3.1	1.4	18.8	5.9	2.1	24.5	11.9	5.2	25.5	13.2	6.1
13.7	3.0	1.4	17.1	5.8	2.1	22.0	11.4	5.0	22.9	12.6	6.0
12.6	3.0	1.4	15.5	5.7	2.1	19.8	10.9	4.7	20.5	11.9	5.8
13.8	3.0	1.4	17.1	5.8	2.1	22.0	11.5	5.0	23.0	12.6	6.0
11.6	3.0	1.4	14.3	5.5	2.0	18.0	10.3	4.4	18.7	11.3	5.3
12.7	3.0	1.4	15.7	5.7	2.1	19.9	10.9	4.7	20.7	12.0	5.8
14.7	3.1	1.4	18.5	5.9	2.1	24.0	11.8	5.2	25.1	13.1	6.1

FLIGHT ALTITUDE = 5,000 FT.   COMBINATION: F

SIGMAP = 1.5 SIGMAT = 4.0 SIGMARH = 8.0

TARGET #1			TARGET #2			TARGET #3			TARGET #4		
DET	CLASS (NMI)	ID	DET	CLASS (NMI)	ID	DET	CLASS (NMI)	ID	DET	CLASS (NMI)	ID
13.3	3.0	1.4	16.5	5.7	2.1	21.2	11.2	4.8	22.1	12.3	5.9
8.1	2.7	1.3	9.5	4.5	1.9	11.5	7.7	3.3	11.8	8.1	3.7
10.5	2.9	1.4	12.8	5.2	2.0	15.9	9.6	4.0	16.5	10.4	4.7
10.1	2.9	1.4	12.2	5.1	2.0	15.1	9.3	3.9	15.7	10.1	4.5
10.7	2.9	1.4	13.1	5.2	2.0	16.3	9.7	4.1	16.9	10.6	4.8
10.8	2.9	1.4	13.2	5.2	2.0	16.5	9.8	4.1	17.1	10.6	4.9
11.8	3.0	1.4	14.5	5.5	2.0	18.4	10.4	4.4	19.1	11.4	5.3
8.0	2.7	1.3	9.4	4.5	1.9	11.3	7.6	3.2	11.7	8.0	3.6
10.0	2.9	1.4	12.1	5.1	2.0	15.0	9.3	3.9	15.6	10.0	4.5
11.2	2.9	1.4	13.8	5.3	2.0	17.3	10.1	4.2	17.9	11.0	5.0
14.4	3.1	1.4	18.0	5.9	2.1	23.3	11.7	5.2	24.3	13.0	6.1
10.9	2.9	1.4	13.4	5.3	2.0	16.7	9.9	4.2	17.3	10.8	5.0
12.7	3.0	1.4	15.7	5.6	2.1	20.1	10.9	4.7	20.9	12.0	5.7
13.2	3.0	1.4	16.4	5.7	2.1	21.0	11.1	4.8	21.9	12.3	5.8
13.2	3.0	1.4	16.4	5.7	2.1	21.0	11.2	4.8	21.8	12.3	5.9
13.2	3.0	1.4	16.3	5.8	2.1	20.9	11.2	4.8	21.7	12.3	5.9
12.3	3.0	1.4	15.2	5.6	2.1	19.4	10.7	4.6	20.2	11.8	5.6
12.8	3.0	1.4	15.8	5.7	2.1	20.1	11.0	4.8	20.8	12.1	5.8
10.8	2.9	1.4	13.2	5.3	2.0	16.5	9.8	4.2	17.1	10.7	5.0
12.3	3.0	1.4	15.2	5.6	2.1	19.3	10.7	4.6	20.0	11.8	5.6
12.9	3.0	1.4	15.9	5.7	2.1	20.3	11.0	4.8	21.1	12.1	5.8
9.0	2.8	1.3	10.8	4.8	2.0	13.2	8.5	3.6	13.7	9.1	4.1
11.1	2.9	1.4	13.6	5.3	2.0	17.1	10.1	4.2	17.7	10.9	5.0
10.9	2.9	1.4	13.4	5.3	2.0	16.7	9.9	4.2	17.3	10.8	4.9
11.0	2.9	1.4	13.4	5.3	2.0	16.8	9.9	4.2	17.4	10.8	5.0
10.7	2.9	1.4	13.1	5.3	2.0	16.3	9.8	4.2	16.9	10.6	4.9
11.9	3.0	1.4	14.6	5.5	2.0	18.4	10.4	4.5	19.1	11.5	5.4
11.4	2.9	1.4	14.1	5.4	2.0	17.7	10.2	4.3	18.3	11.2	5.2
8.5	2.8	1.3	10.1	4.7	1.9	12.2	8.0	3.4	12.6	8.6	3.9
10.2	2.9	1.4	12.4	5.1	2.0	15.3	9.4	4.0	15.9	10.2	4.7
16.2	3.1	1.4	20.4	6.1	2.1	26.5	12.4	5.6	27.6	13.9	6.3
11.5	2.9	1.4	14.1	5.4	2.0	17.7	10.2	4.4	18.4	11.2	5.2
13.5	3.0	1.4	16.8	5.8	2.1	21.6	11.3	4.9	22.5	12.5	5.9
14.1	3.0	1.4	17.6	5.8	2.1	22.7	11.6	5.0	23.7	12.8	6.0
13.6	3.0	1.4	16.9	5.8	2.1	21.6	11.4	5.0	22.5	12.6	5.9
13.5	3.0	1.4	16.8	5.8	2.1	21.5	11.4	4.9	22.4	12.5	5.9
13.4	3.0	1.4	16.6	5.8	2.1	21.1	11.3	5.0	22.0	12.5	5.9
11.0	2.9	1.4	13.5	5.3	2.0	16.9	10.0	4.3	17.5	10.9	5.1
13.2	3.0	1.4	16.3	5.8	2.1	20.8	11.2	4.8	21.6	12.3	5.9
14.0	3.1	1.4	17.5	5.9	2.1	22.5	11.6	5.1	23.4	12.8	6.0
16.3	3.1	1.4	20.7	6.1	2.1	27.0	12.5	5.6	28.2	14.0	6.3
13.3	3.0	1.4	16.5	5.8	2.1	21.1	11.2	4.9	21.9	12.3	5.9
14.3	3.1	1.4	17.8	5.9	2.1	23.1	11.7	5.1	24.0	12.9	6.0
14.6	3.1	1.4	18.5	5.9	2.1	24.0	11.8	5.2	25.0	13.1	6.1
15.9	3.1	1.4	20.2	6.0	2.1	26.3	12.3	5.5	27.5	13.8	6.2
14.1	3.1	1.4	17.7	5.9	2.1	22.9	11.6	5.1	23.9	12.8	6.0
14.9	3.1	1.4	18.8	6.0	2.1	24.3	12.0	5.3	25.3	13.3	6.1
12.4	3.0	1.4	15.3	5.6	2.1	19.5	10.8	4.7	20.2	11.8	5.7
14.6	3.1	1.4	18.4	5.9	2.1	23.8	11.8	5.2	24.8	13.1	6.1
14.2	3.1	1.4	17.8	5.9	2.1	22.9	11.7	5.1	23.9	12.9	6.0
15.6	3.1	1.4	19.7	6.0	2.1	25.6	12.2	5.4	26.7	13.7	6.2
12.6	3.0	1.4	15.5	5.6	2.1	19.7	10.8	4.7	20.5	11.9	5.7
13.3	3.0	1.4	16.5	5.8	2.1	21.1	11.2	4.9	21.9	12.4	5.9
14.4	3.1	1.4	18.2	5.9	2.1	23.6	11.7	5.1	24.6	13.0	6.0
14.8	3.1	1.4	18.6	5.9	2.1	24.2	11.9	5.3	25.2	13.1	6.1
13.8	3.0	1.4	17.2	5.8	2.1	22.1	11.5	5.0	23.1	12.6	6.0
14.4	3.1	1.4	18.1	5.9	2.1	23.3	11.8	5.2	24.3	13.0	6.1
11.9	3.0	1.4	14.6	5.5	2.0	18.5	10.5	4.5	19.2	11.5	5.4
13.7	3.0	1.4	17.1	5.8	2.1	21.9	11.4	5.0	22.8	12.6	6.0
13.1	3.0	1.4	16.2	5.8	2.1	20.6	11.1	4.9	21.4	12.2	5.9
14.7	3.1	1.4	18.5	5.9	2.1	23.9	11.9	5.3	24.9	13.2	6.1
11.3	2.9	1.4	13.8	5.4	2.0	17.4	10.1	4.3	18.0	11.0	5.2
11.9	3.0	1.4	14.6	5.5	2.0	18.4	10.5	4.5	19.1	11.5	5.5
13.3	3.0	1.4	16.5	5.8	2.1	21.1	11.2	4.9	21.9	12.4	5.9
13.1	3.0	1.4	16.2	5.7	2.1	20.8	11.1	4.8	21.6	12.2	5.8
13.3	3.0	1.4	16.6	5.8	2.1	21.2	11.3	4.9	22.0	12.4	5.9
12.8	3.0	1.4	15.9	5.7	2.1	20.3	11.0	4.7	21.1	12.1	5.8
14.0	3.1	1.4	17.4	5.9	2.1	22.4	11.6	5.1	23.3	12.8	6.0
11.2	2.9	1.4	13.7	5.4	2.0	17.2	10.0	4.3	17.8	11.0	5.1
12.6	3.0	1.4	15.6	5.7	2.1	19.9	10.9	4.7	20.7	12.0	5.7
15.2	3.1	1.4	19.1	6.0	2.1	24.8	12.1	5.4	25.9	13.4	6.2
11.3	2.9	1.4	13.8	5.4	2.0	17.4	10.1	4.3	18.0	11.0	5.1
13.8	3.0	1.4	17.3	5.8	2.1	22.4	11.5	5.0	23.4	12.7	5.9
14.3	3.0	1.4	18.1	5.9	2.1	23.5	11.7	5.0	24.5	12.9	6.0
13.5	3.0	1.4	16.8	5.8	2.1	21.5	11.3	4.9	22.4	12.5	5.9
12.4	3.0	1.4	15.2	5.6	2.1	19.4	10.7	4.7	20.2	11.8	5.7
14.6	3.1	1.4	18.3	5.9	2.1	23.7	11.8	5.2	24.7	13.1	6.1
11.3	2.9	1.4	13.9	5.4	2.0	17.5	10.2	4.4	18.1	11.1	5.2
12.5	3.0	1.4	15.3	5.6	2.1	19.5	10.8	4.7	20.3	11.9	5.7
15.0	3.1	1.4	19.0	5.9	2.1	24.7	12.0	5.3	25.8	13.3	6.1

FLIGHT ALTITUDE = 10,000 FT.   COMBINATION: A

SIGMAP = 2.5 SIGMAT = 1.0 SIGMARH = 8.0

TARGET #1			TARGET #2			TARGET #3			TARGET #4		
DET	CLASS (NMI)	ID	DET	CLASS (NMI)	ID	DET	CLASS (NMI)	ID	DET	CLASS (NMI)	ID
15.2	3.5	0.0	19.0	5.2	2.5	24.9	11.9	4.4	26.0	13.2	4.8
11.6	3.4	0.0	14.4	4.9	2.4	18.0	10.1	4.1	18.7	11.3	4.4
15.1	3.5	0.0	19.0	5.2	2.5	24.8	11.9	4.3	25.9	13.1	4.8
14.4	3.5	0.0	18.0	5.1	2.5	23.5	11.7	4.3	24.5	12.8	4.7
14.4	3.5	0.0	18.0	5.2	2.5	23.4	11.7	4.3	24.4	12.8	4.7
14.2	3.5	0.0	17.7	5.1	2.5	22.9	11.6	4.3	23.9	12.7	4.7
14.1	3.5	0.0	17.6	5.1	2.5	22.7	11.5	4.3	23.7	12.7	4.7
11.6	3.4	0.0	14.4	4.9	2.4	18.0	10.1	4.1	18.7	11.3	4.4
13.9	3.5	0.0	17.3	5.1	2.5	22.3	11.4	4.3	23.3	12.6	4.6
14.7	3.5	0.0	18.4	5.2	2.5	24.0	11.8	4.3	25.0	13.0	4.7
15.5	3.5	0.0	19.5	5.3	2.5	25.4	12.1	4.4	26.5	13.4	4.8
14.5	3.5	0.0	18.0	5.2	2.5	23.3	11.7	4.3	24.3	12.9	4.7
16.0	3.5	0.0	20.2	5.3	2.5	26.5	12.2	4.4	27.7	13.6	4.9
16.9	3.5	0.0	21.6	5.3	2.5	28.8	12.5	4.5	30.1	14.0	4.9
15.4	3.5	0.0	19.2	5.2	2.5	25.1	12.0	4.4	26.2	13.3	4.8
15.3	3.5	0.0	19.1	5.2	2.5	24.9	12.0	4.4	26.0	13.3	4.8
14.0	3.5	0.0	17.4	5.1	2.5	22.3	11.5	4.3	23.2	12.7	4.7
14.2	3.5	0.0	17.6	5.1	2.5	22.7	11.6	4.3	23.7	12.7	4.7
15.2	3.5	0.0	18.9	5.2	2.5	24.7	12.0	4.4	25.8	13.2	4.8
15.4	3.5	0.0	19.4	5.2	2.5	25.3	12.1	4.4	26.5	13.4	4.8
14.4	3.5	0.0	18.0	5.2	2.5	23.2	11.7	4.3	24.2	12.9	4.7
12.7	3.4	0.0	15.7	5.0	2.5	19.9	10.7	4.2	20.7	12.0	4.5
15.3	3.5	0.0	19.2	5.2	2.5	25.2	12.0	4.4	26.3	13.3	4.8
15.2	3.5	0.0	19.1	5.2	2.5	25.0	11.9	4.3	26.1	13.2	4.8
14.1	3.5	0.0	17.6	5.1	2.5	22.6	11.6	4.3	23.6	12.7	4.7
13.5	3.5	0.0	16.7	5.1	2.5	21.3	11.2	4.3	22.2	12.4	4.6
13.8	3.5	0.0	17.2	5.1	2.5	22.1	11.4	4.3	23.0	12.5	4.6
12.2	3.4	0.0	15.2	5.0	2.4	19.1	10.5	4.1	19.8	11.7	4.5
13.4	3.5	0.0	16.6	5.1	2.5	21.2	11.1	4.2	22.0	12.3	4.6
14.8	3.5	0.0	18.5	5.2	2.5	24.2	11.8	4.3	25.2	13.0	4.7
17.1	3.6	0.0	21.8	5.4	2.5	28.7	12.6	4.5	30.0	14.1	5.0
15.3	3.5	0.0	19.1	5.2	2.5	24.8	12.0	4.4	25.9	13.3	4.8
17.2	3.5	0.0	22.0	5.4	2.5	29.1	12.7	4.5	30.5	14.1	5.0
17.9	3.6	0.0	23.3	5.4	2.5	31.3	12.8	4.5	32.8	14.4	5.0
16.4	3.5	0.0	20.7	5.3	2.5	27.2	12.4	4.5	28.4	13.8	4.9
16.5	3.5	0.0	20.8	5.3	2.5	27.3	12.4	4.5	28.5	13.8	4.9
15.0	3.5	0.0	18.6	5.2	2.5	24.1	11.9	4.4	25.1	13.1	4.8
14.9	3.5	0.0	18.5	5.2	2.5	24.0	11.9	4.4	25.0	13.1	4.8
16.2	3.5	0.0	20.4	5.3	2.5	26.7	12.3	4.4	27.9	13.7	4.9
16.6	3.5	0.0	21.1	5.3	2.5	27.7	12.5	4.5	28.9	13.9	4.9
17.2	3.6	0.0	21.8	5.4	2.5	28.8	12.6	4.5	30.1	14.1	5.0
16.4	3.5	0.0	20.7	5.3	2.5	27.1	12.4	4.5	28.3	13.8	4.9
17.0	3.5	0.0	21.5	5.3	2.5	28.4	12.6	4.5	29.7	14.0	5.0
17.8	3.6	0.0	22.9	5.4	2.5	30.6	12.8	4.5	32.1	14.4	5.0
17.1	3.5	0.0	21.7	5.4	2.5	28.7	12.6	4.5	30.1	14.1	5.0
16.9	3.5	0.0	21.4	5.3	2.5	28.2	12.6	4.5	29.5	14.0	5.0
16.4	3.5	0.0	20.7	5.3	2.5	27.1	12.4	4.5	28.3	13.8	4.9
15.7	3.5	0.0	19.7	5.3	2.5	25.8	12.2	4.4	26.9	13.5	4.9
16.9	3.5	0.0	21.5	5.3	2.5	28.4	12.6	4.5	29.7	14.0	5.0
16.3	3.5	0.0	20.8	5.3	2.5	27.4	12.4	4.5	28.6	13.8	4.9
16.6	3.5	0.0	21.0	5.3	2.5	27.6	12.5	4.5	28.8	13.9	4.9
15.7	3.5	0.0	19.7	5.3	2.5	25.8	12.2	4.4	27.0	13.5	4.9
16.0	3.5	0.0	20.1	5.3	2.5	26.3	12.3	4.4	27.4	13.6	4.9
17.7	3.6	0.0	22.9	5.4	2.5	30.7	12.8	4.5	32.2	14.3	5.0
16.4	3.5	0.0	20.7	5.3	2.5	27.3	12.4	4.5	28.5	13.8	4.9
16.3	3.5	0.0	20.6	5.3	2.5	27.1	12.4	4.5	28.3	13.8	4.9
15.9	3.5	0.0	20.0	5.3	2.5	26.1	12.2	4.4	27.3	13.6	4.9
15.3	3.5	0.0	19.1	5.2	2.5	24.9	12.0	4.4	26.0	13.3	4.8
16.3	3.5	0.0	20.6	5.3	2.5	27.0	12.4	4.5	28.2	13.7	4.9
15.3	3.5	0.0	19.0	5.2	2.5	24.7	12.0	4.4	25.8	13.3	4.8
15.7	3.5	0.0	19.6	5.3	2.5	25.6	12.2	4.4	26.7	13.5	4.9
14.6	3.5	0.0	18.2	5.2	2.5	23.6	11.8	4.3	24.6	13.0	4.7
14.6	3.5	0.0	18.1	5.2	2.5	23.4	11.8	4.4	24.4	13.0	4.8
16.2	3.5	0.0	20.6	5.3	2.5	27.3	12.3	4.4	28.5	13.7	4.9
15.4	3.5	0.0	19.3	5.2	2.5	25.1	12.1	4.4	26.2	13.3	4.8
15.4	3.5	0.0	19.3	5.2	2.5	25.2	12.1	4.4	26.3	13.4	4.8
14.4	3.5	0.0	17.8	5.2	2.5	23.0	11.7	4.3	24.0	12.8	4.7
15.2	3.5	0.0	19.1	5.2	2.5	24.8	12.0	4.4	25.9	13.3	4.8
15.1	3.5	0.0	18.9	5.2	2.5	24.6	12.0	4.4	25.6	13.2	4.8
15.0	3.5	0.0	18.7	5.2	2.5	24.3	11.9	4.4	25.3	13.1	4.8
16.2	3.5	0.0	20.4	5.3	2.5	26.7	12.3	4.4	27.9	13.7	4.9
14.8	3.5	0.0	18.4	5.2	2.5	24.0	11.8	4.4	25.0	13.1	4.8
17.3	3.5	0.0	22.3	5.4	2.5	29.7	12.7	4.5	31.1	14.2	5.0
17.8	3.6	0.0	23.1	5.4	2.5	31.2	12.8	4.5	32.7	14.4	5.0
15.7	3.5	0.0	19.8	5.3	2.5	25.9	12.2	4.4	27.0	13.5	4.9
16.9	3.5	0.0	21.6	5.3	2.5	28.6	12.5	4.5	30.0	14.0	4.9
15.0	3.5	0.0	18.7	5.2	2.5	24.3	11.9	4.4	25.3	13.2	4.8
15.6	3.5	0.0	19.6	5.3	2.5	25.7	12.1	4.4	26.8	13.4	4.8
14.6	3.5	0.0	18.2	5.2	2.5	23.5	11.8	4.3	24.5	13.0	4.7
14.9	3.5	0.0	18.5	5.2	2.5	24.0	11.9	4.4	25.1	13.1	4.8

FLIGHT ALTITUDE = 10,000 FT. COMBINATION:B

SIGMAP = 2.5 SIGMAT = 2.0 SIGMARH = 8.0

TARGET #1 DET	TARGET #1 CLASS (NMI)	TARGET #1 ID	TARGET #2 DET	TARGET #2 CLASS (NMI)	TARGET #2 ID	TARGET #3 DET	TARGET #3 CLASS (NMI)	TARGET #3 ID	TARGET #4 DET	TARGET #4 CLASS (NMI)	TARGET #4 ID
15.7	3.5	0.0	19.8	5.2	2.5	26.1	12.1	4.4	27.2	13.5	4.8
11.4	3.4	0.0	14.0	4.9	2.4	17.5	9.9	4.1	18.2	11.0	4.3
14.9	3.5	0.0	18.7	5.2	2.5	24.5	11.8	4.3	25.5	13.1	4.7
14.2	3.5	0.0	17.8	5.1	2.5	23.1	11.6	4.3	24.1	12.7	4.7
14.3	3.5	0.0	17.9	5.1	2.5	23.2	11.6	4.3	24.2	12.8	4.7
14.3	3.5	0.0	17.9	5.1	2.5	23.2	11.7	4.3	24.2	12.8	4.7
14.6	3.5	0.0	18.2	5.2	2.5	23.7	11.7	4.3	24.8	12.9	4.7
11.5	3.4	0.0	14.2	4.9	2.4	17.8	10.0	4.1	18.4	11.1	4.4
13.8	3.5	0.0	17.2	5.1	2.5	22.1	11.3	4.3	23.0	12.5	4.6
14.8	3.5	0.0	18.5	5.2	2.5	24.2	11.8	4.3	25.2	13.0	4.7
15.9	3.5	0.0	19.9	5.3	2.5	26.1	12.2	4.4	27.2	13.5	4.9
14.2	3.5	0.0	17.7	5.2	2.5	22.8	11.6	4.3	23.8	12.8	4.7
15.9	3.5	0.0	20.0	5.3	2.5	26.3	12.2	4.4	27.4	13.5	4.9
16.7	3.5	0.0	21.4	5.3	2.5	28.5	12.5	4.5	29.8	13.9	4.9
15.4	3.5	0.0	19.2	5.2	2.5	25.1	12.0	4.4	26.2	13.3	4.8
15.3	3.5	0.0	19.1	5.2	2.5	25.0	12.0	4.4	26.1	13.3	4.8
14.4	3.5	0.0	17.8	5.2	2.5	22.9	11.7	4.3	23.9	12.8	4.7
14.1	3.5	0.0	17.6	5.1	2.5	22.6	11.6	4.3	23.6	12.7	4.7
15.1	3.5	0.0	18.8	5.2	2.5	24.5	11.9	4.4	25.6	13.2	4.8
15.5	3.5	0.0	19.4	5.2	2.5	25.4	12.1	4.4	26.2	13.4	4.8
14.9	3.5	0.0	18.6	5.2	2.5	24.1	11.9	4.4	25.2	13.1	4.8
12.4	3.4	0.0	15.4	5.0	2.4	19.4	10.6	4.2	20.2	11.8	4.5
15.1	3.5	0.0	19.0	5.2	2.5	24.8	11.9	4.4	25.9	13.2	4.8
15.0	3.5	0.0	18.9	5.2	2.5	24.7	11.9	4.3	25.8	13.1	4.7
14.0	3.5	0.0	17.5	5.1	2.5	22.5	11.5	4.3	23.4	12.7	4.7
13.6	3.5	0.0	16.9	5.1	2.5	21.6	11.3	4.3	22.5	12.5	4.6
14.2	3.5	0.0	17.6	5.1	2.5	22.7	11.6	4.3	23.7	12.7	4.7
12.0	3.4	0.0	14.9	5.0	2.4	18.7	10.3	4.1	19.4	11.6	4.4
13.2	3.5	0.0	16.4	5.1	2.5	20.9	11.1	4.2	21.8	12.3	4.6
14.9	3.5	0.0	18.6	5.2	2.5	24.3	11.8	4.3	25.3	13.1	4.7
17.5	3.6	0.0	22.3	5.4	2.5	29.4	12.8	4.5	30.8	14.3	5.0
15.0	3.5	0.0	18.7	5.2	2.5	24.4	11.9	4.4	25.4	13.2	4.8
17.1	3.5	0.0	21.7	5.3	2.5	28.7	12.6	4.5	30.1	14.1	5.0
17.8	3.6	0.0	23.1	5.4	2.5	31.0	12.8	4.5	32.5	14.4	5.0
16.3	3.5	0.0	20.6	5.3	2.5	27.0	12.4	4.5	28.2	13.8	4.9
16.6	3.5	0.0	20.9	5.3	2.5	27.5	12.5	4.5	28.7	13.9	4.9
15.3	3.5	0.0	19.1	5.2	2.5	24.7	12.0	4.4	25.8	13.3	4.8
14.7	3.5	0.0	18.3	5.2	2.5	23.7	11.8	4.4	24.7	13.0	4.8
16.1	3.5	0.0	20.3	5.3	2.5	26.5	12.3	4.4	27.7	13.7	4.9
16.7	3.5	0.0	21.2	5.3	2.5	27.9	12.5	4.5	29.1	13.9	4.9
17.4	3.6	0.0	22.2	5.4	2.5	29.4	12.7	4.5	30.8	14.3	5.0
16.2	3.5	0.0	20.4	5.3	2.5	26.7	12.3	4.4	27.9	13.7	4.9
16.9	3.5	0.0	21.4	5.3	2.5	28.2	12.6	4.5	29.5	14.0	5.0
17.7	3.6	0.0	22.7	5.4	2.5	30.4	12.8	4.5	31.9	14.3	5.0
16.4	3.5	0.0	20.7	5.3	2.5	27.2	12.4	4.5	28.4	13.8	4.9
17.2	3.6	0.0	21.9	5.4	2.5	28.9	12.7	4.5	30.2	14.1	5.0
16.9	3.5	0.0	21.4	5.3	2.5	28.2	12.6	4.5	29.5	14.0	5.0
16.6	3.5	0.0	21.9	5.3	2.5	27.7	12.5	4.5	28.9	13.9	4.9
15.7	3.5	0.0	19.7	5.3	2.5	25.7	12.2	4.4	26.8	13.5	4.9
16.9	3.5	0.0	21.4	5.3	2.5	28.3	12.6	4.5	29.5	14.0	5.0
16.9	3.5	0.0	21.4	5.3	2.5	28.2	12.6	4.5	29.4	14.0	5.0
15.5	3.5	0.0	19.4	5.3	2.5	25.4	12.1	4.4	26.5	13.4	4.8
15.9	3.5	0.0	20.0	5.3	2.5	26.1	12.2	4.4	27.2	13.6	4.9
17.6	3.6	0.0	22.7	5.4	2.5	30.5	12.8	4.5	31.9	14.3	5.0
16.4	3.5	0.0	20.8	5.3	2.5	27.3	12.4	4.5	28.5	13.8	4.9
16.4	3.5	0.0	20.7	5.3	2.5	27.2	12.4	4.5	28.4	13.8	4.9
16.2	3.5	0.0	20.4	5.3	2.5	26.7	12.3	4.4	27.9	13.7	4.9
15.2	3.5	0.0	19.0	5.2	2.5	24.8	12.0	4.4	25.9	13.3	4.8
16.2	3.5	0.0	20.4	5.3	2.5	26.8	12.3	4.4	27.9	13.7	4.9
15.2	3.5	0.0	19.0	5.2	2.5	24.6	12.0	4.4	25.7	13.3	4.8
16.0	3.5	0.0	20.1	5.3	2.5	26.3	12.3	4.4	27.4	13.6	4.9
14.4	3.5	0.0	17.9	5.2	2.5	23.1	11.7	4.3	24.1	12.8	4.7
14.5	3.5	0.0	18.0	5.2	2.5	23.2	11.8	4.3	24.2	12.9	4.7
16.2	3.5	0.0	20.5	5.3	2.5	27.1	12.3	4.4	28.3	13.7	4.9
15.4	3.5	0.0	19.2	5.2	2.5	25.1	12.0	4.4	26.2	13.3	4.8
15.4	3.5	0.0	19.3	5.2	2.5	25.2	12.1	4.4	26.3	13.4	4.8
15.4	3.5	0.0	19.2	5.2	2.5	25.1	12.1	4.4	26.2	13.3	4.8
14.3	3.5	0.0	17.8	5.2	2.5	23.0	11.7	4.3	24.0	12.8	4.7
15.1	3.5	0.0	18.9	5.2	2.5	24.7	12.0	4.4	25.7	13.2	4.8
15.2	3.5	0.0	18.9	5.2	2.5	24.6	12.0	4.4	25.7	13.2	4.8
16.5	3.5	0.0	20.8	5.3	2.5	27.3	12.4	4.5	28.5	13.8	4.9
14.5	3.5	0.0	18.0	5.2	2.5	23.4	11.7	4.3	24.4	12.9	4.7
17.2	3.5	0.0	22.0	5.3	2.5	29.3	12.6	4.5	30.7	14.1	5.0
17.7	3.5	0.0	23.0	5.4	2.5	31.0	12.8	4.5	32.5	14.3	5.0
15.7	3.5	0.0	19.7	5.3	2.5	25.8	12.2	4.4	26.9	13.5	4.9
15.0	3.5	0.0	18.7	5.2	2.5	24.2	11.9	4.4	25.3	13.2	4.8
16.0	3.5	0.0	20.2	5.3	2.5	26.5	12.3	4.4	27.7	13.6	4.9
14.6	3.5	0.0	18.1	5.2	2.5	23.5	11.8	4.3	24.5	12.9	4.7
14.9	3.5	0.0	18.5	5.2	2.5	24.0	11.9	4.4	25.1	13.1	4.8
17.0	3.5	0.0	21.7	5.3	2.5	28.8	12.6	4.5	30.2	14.0	4.9

FLIGHT ALTITUDE = 10,000 FT.   COMBINATION: C

SIGMAP = 2.5 SIGMAT = 4.0 SIGMARH = 8.0

TARGET #1			TARGET #2			TARGET #3			TARGET #4		
DET	CLASS (NMI)	ID	DET	CLASS (NMI)	ID	DET	CLASS (NMI)	ID	DET	CLASS (NMI)	ID
16.7	3.5	0.0	21.3	5.3	2.5	28.2	12.5	4.5	29.5	13.9	4.9
10.9	3.3	0.0	13.2	4.8	2.4	16.5	9.5	4.0	17.1	10.5	4.3
14.5	3.5	0.0	18.2	5.2	2.5	23.7	11.7	4.3	24.7	12.9	4.7
13.9	3.5	0.0	17.4	5.1	2.5	22.4	11.4	4.3	23.4	12.6	4.6
14.1	3.5	0.0	17.6	5.1	2.5	22.8	11.5	4.3	23.7	12.7	4.7
14.4	3.5	0.0	18.0	5.2	2.5	23.4	11.7	4.3	24.4	12.8	4.7
15.5	3.5	0.0	19.6	5.2	2.5	25.7	12.1	4.4	26.9	13.4	4.8
11.1	3.3	0.0	13.6	4.8	2.4	16.9	9.7	4.0	17.5	10.8	4.3
13.4	3.5	0.0	16.7	5.1	2.5	21.5	11.2	4.2	22.3	12.3	4.6
14.8	3.5	0.0	18.6	5.2	2.5	24.3	11.8	4.3	25.3	13.0	4.7
16.4	3.5	0.0	20.7	5.3	2.5	27.2	12.4	4.5	28.4	13.8	4.9
13.6	3.5	0.0	16.9	5.1	2.5	21.6	11.3	4.3	22.5	12.4	4.6
15.6	3.5	0.0	19.6	5.2	2.5	25.7	12.1	4.4	26.8	13.4	4.8
16.5	3.5	0.0	21.0	5.3	2.5	27.9	12.4	4.4	29.1	13.8	4.9
15.3	3.5	0.0	19.2	5.2	2.5	25.0	12.0	4.4	26.1	13.3	4.8
15.2	3.5	0.0	19.0	5.2	2.5	24.7	12.0	4.4	25.8	13.2	4.8
15.0	3.5	0.0	18.6	5.2	2.5	24.1	11.9	4.4	25.2	13.2	4.8
13.9	3.5	0.0	17.3	5.1	2.5	22.2	11.5	4.3	23.1	12.6	4.7
14.7	3.5	0.0	18.3	5.2	2.5	23.8	11.8	4.3	24.9	13.0	4.8
15.5	3.5	0.0	19.4	5.2	2.5	25.4	12.1	4.4	26.5	13.4	4.8
15.7	3.5	0.0	19.7	5.3	2.5	25.8	12.2	4.4	26.9	13.5	4.8
11.8	3.4	0.0	14.6	4.9	2.4	18.4	10.2	4.1	19.1	11.4	4.4
14.7	3.5	0.0	18.4	5.2	2.5	24.1	11.8	4.3	25.1	13.0	4.7
14.6	3.5	0.0	18.3	5.2	2.5	23.9	11.7	4.3	24.9	12.9	4.7
13.9	3.5	0.0	17.3	5.1	2.5	22.2	11.4	4.3	23.1	12.6	4.7
13.8	3.5	0.0	17.1	5.1	2.5	22.0	11.4	4.3	22.9	12.6	4.7
14.8	3.5	0.0	18.4	5.2	2.5	24.0	11.8	4.3	25.0	13.0	4.8
11.5	3.4	0.0	14.2	4.9	2.4	17.7	10.0	4.1	18.4	11.1	4.4
12.9	3.4	0.0	16.0	5.0	2.5	20.4	10.9	4.2	21.2	12.1	4.6
14.8	3.5	0.0	18.5	5.2	2.5	24.2	11.8	4.3	25.2	13.0	4.7
18.1	3.6	0.0	23.2	5.4	2.6	30.8	12.9	4.6	32.2	14.5	5.1
14.5	3.5	0.0	18.0	5.2	2.5	23.3	11.7	4.3	24.3	12.9	4.7
16.7	3.5	0.0	21.2	5.3	2.5	28.0	12.5	4.5	29.2	13.9	4.9
17.6	3.5	0.0	22.6	5.4	2.5	30.3	12.7	4.5	31.8	14.3	5.0
16.1	3.5	0.0	20.3	5.3	2.5	26.6	12.3	4.4	27.8	13.7	4.9
16.6	3.5	0.0	20.9	5.3	2.5	27.5	12.5	4.5	28.7	13.9	4.9
15.9	3.5	0.0	19.9	5.3	2.5	25.9	12.3	4.4	27.1	13.6	4.9
14.3	3.5	0.0	17.8	5.2	2.5	22.9	11.7	4.3	23.9	12.8	4.7
15.8	3.5	0.0	19.9	5.3	2.5	26.0	12.2	4.4	27.1	13.5	4.9
16.7	3.5	0.0	21.2	5.3	2.5	27.9	12.5	4.5	29.1	13.9	4.9
17.9	3.6	0.0	22.9	5.4	2.6	30.5	12.9	4.5	31.9	14.4	5.0
15.7	3.5	0.0	19.7	5.3	2.5	25.8	12.2	4.4	27.0	13.5	4.9
16.7	3.5	0.0	21.1	5.3	2.5	27.8	12.5	4.5	29.0	13.9	4.9
17.4	3.5	0.0	22.4	5.4	2.5	29.8	12.7	4.5	31.3	14.2	5.0
17.3	3.6	0.0	22.1	5.4	2.5	29.2	12.7	4.5	30.6	14.2	5.0
16.7	3.5	0.0	21.2	5.3	2.5	27.9	12.5	4.5	29.1	13.9	4.9
17.1	3.6	0.0	21.8	5.4	2.5	28.8	12.6	4.5	30.1	14.1	5.0
15.5	3.5	0.0	19.4	5.2	2.5	25.2	12.1	4.4	26.3	13.4	4.8
16.7	3.5	0.0	21.1	5.3	2.5	27.8	12.5	4.5	29.1	13.9	4.9
16.2	3.5	0.0	20.4	5.3	2.5	26.8	12.3	4.4	27.9	13.7	4.9
17.3	3.6	0.0	22.1	5.4	2.5	29.2	12.7	4.5	30.6	14.2	5.0
15.0	3.5	0.0	18.7	5.2	2.5	24.3	11.9	4.4	25.4	13.1	4.8
15.7	3.5	0.0	19.7	5.3	2.5	25.7	12.2	4.4	26.8	13.5	4.9
17.4	3.5	0.0	22.3	5.4	2.4	29.8	12.7	4.5	31.3	14.2	5.0
16.5	3.5	0.0	20.9	5.3	2.5	27.5	12.4	4.5	28.7	13.8	4.9
16.3	3.5	0.0	20.6	5.3	2.5	27.1	12.4	4.5	28.3	13.8	4.9
16.7	3.5	0.0	21.1	5.3	2.5	27.8	12.5	4.5	29.0	13.9	4.9
15.0	3.5	0.0	18.7	5.2	2.5	24.2	11.9	4.4	25.3	13.1	4.8
15.9	3.5	0.0	19.9	5.3	2.5	26.1	12.2	4.4	27.3	13.6	4.9
15.0	3.5	0.0	18.7	5.2	2.5	24.2	11.9	4.4	25.3	13.2	4.8
16.5	3.5	0.0	20.8	5.3	2.5	27.3	12.4	4.5	28.5	13.8	4.9
13.8	3.5	0.0	17.1	5.1	2.5	22.0	11.4	4.3	22.9	12.5	4.7
14.3	3.5	0.0	17.7	5.2	2.5	22.7	11.7	4.3	23.7	12.8	4.7
16.0	3.5	0.0	20.2	5.3	2.5	26.6	12.2	4.4	27.8	13.6	4.9
15.3	3.5	0.0	19.1	5.2	2.5	24.9	12.0	4.4	26.0	13.3	4.8
15.3	3.5	0.0	19.2	5.2	2.5	25.0	12.0	4.4	26.1	13.3	4.8
16.1	3.5	0.0	20.3	5.3	2.5	26.6	12.3	4.4	27.7	13.7	4.9
14.1	3.5	0.0	17.6	5.1	2.5	22.6	11.6	4.3	23.6	12.7	4.7
14.9	3.5	0.0	18.5	5.2	2.5	24.1	11.9	4.4	25.1	13.1	4.8
15.1	3.5	0.0	18.9	5.2	2.5	24.6	12.0	4.4	25.6	13.2	4.8
16.9	3.5	0.0	21.4	5.3	2.5	28.3	12.6	4.5	29.5	14.0	5.0
13.9	3.5	0.0	17.2	5.1	2.5	22.1	11.4	4.3	23.0	12.6	4.7
16.8	3.5	0.0	21.5	5.3	2.5	28.5	12.5	4.5	29.9	14.0	4.9
17.5	3.5	0.0	22.6	5.4	2.5	30.4	12.7	4.5	31.9	14.2	5.0
15.6	3.5	0.0	19.5	5.3	2.5	25.5	12.1	4.4	26.6	13.4	4.8
14.8	3.5	0.0	18.4	5.2	2.5	23.8	11.9	4.4	24.9	13.1	4.8
16.8	3.5	0.0	21.3	5.3	2.5	28.1	12.5	4.5	29.4	14.0	4.9
14.4	3.5	0.0	17.9	5.2	2.5	23.1	11.7	4.3	24.1	12.9	4.7
14.6	3.5	0.0	18.2	5.2	2.5	23.5	11.8	4.3	24.5	13.0	4.8
17.0	3.5	0.0	21.7	5.3	2.5	28.9	12.6	4.5	30.3	14.0	5.0

FLIGHT ALTITUDE = 10,000 FT. COMBINATION: D

SIGMAP = 1.5 SIGMAT = 1.0 SIGMARH 8.0

TARGET #1 DET	TARGET #1 CLASS (NMI)	TARGET #1 ID	TARGET #2 DET	TARGET #2 CLASS (NMI)	TARGET #2 ID	TARGET #3 DET	TARGET #3 CLASS (NMI)	TARGET #3 ID	TARGET #4 DET	TARGET #4 CLASS (NMI)	TARGET #4 ID
15.1	3.5	0.0	18.9	5.2	2.5	24.7	11.9	4.4	25.8	13.1	4.8
11.6	3.4	0.0	14.4	4.9	2.4	18.1	10.1	4.1	18.8	11.3	4.4
15.0	3.5	0.0	18.8	5.2	2.5	24.6	11.9	4.3	25.6	13.1	4.7
14.5	3.5	0.0	18.1	5.1	2.5	23.6	11.7	4.3	24.6	12.9	4.7
14.4	3.5	0.0	18.0	5.2	2.5	23.4	11.7	4.3	24.5	12.8	4.7
14.1	3.5	0.0	17.6	5.1	2.5	22.8	11.6	4.3	23.8	12.7	4.7
14.0	3.5	0.0	17.5	5.1	2.5	22.6	11.5	4.3	23.6	12.6	4.6
11.7	3.4	0.0	14.5	4.9	2.0	18.2	10.1	4.1	18.9	11.3	4.4
13.9	3.5	0.0	17.3	5.1	2.5	22.3	11.4	4.3	23.2	12.6	4.6
14.5	3.5	0.0	18.2	5.2	2.5	23.7	11.7	4.3	24.7	12.9	4.7
15.5	3.5	0.0	19.4	5.3	2.5	25.4	12.1	4.4	26.5	13.4	4.8
14.5	3.5	0.0	18.0	5.2	2.5	23.4	11.7	4.3	24.4	12.9	4.7
16.0	3.5	0.0	20.2	5.3	2.5	26.5	12.2	4.4	27.7	13.6	4.9
16.9	3.5	0.0	21.6	5.3	2.5	28.9	12.5	4.5	30.2	14.0	4.9
15.4	3.5	0.0	19.2	5.2	2.5	25.1	12.0	4.4	26.2	13.3	4.8
15.4	3.5	0.0	19.3	5.2	2.5	25.3	12.1	4.4	26.4	13.3	4.8
15.2	3.5	0.0	19.1	5.2	2.5	24.8	12.0	4.4	25.9	13.3	4.8
14.1	3.5	0.0	17.4	5.1	2.5	22.4	11.6	4.3	23.3	12.7	4.7
14.2	3.5	0.0	17.7	5.2	2.5	22.8	11.6	4.3	23.8	12.8	4.7
15.2	3.5	0.0	18.9	5.2	2.5	24.7	12.0	4.4	25.8	13.2	4.8
14.3	3.5	0.0	17.8	5.2	2.5	23.0	11.7	4.3	24.0	12.8	4.7
12.7	3.4	0.0	15.8	5.0	2.5	20.0	10.8	4.2	20.8	12.0	4.5
15.2	3.5	0.0	19.1	5.2	2.5	24.9	11.9	4.4	26.0	13.2	4.8
15.3	3.5	0.0	19.2	5.2	2.5	25.2	12.0	4.4	26.4	13.2	4.8
14.2	3.5	0.0	17.6	5.1	2.5	22.8	11.6	4.3	23.7	12.7	4.7
13.4	3.5	0.0	16.7	5.1	2.5	21.2	11.2	4.3	22.1	12.4	4.6
13.8	3.5	0.0	17.2	5.1	2.5	22.1	11.4	4.3	23.1	12.6	4.6
12.3	3.4	0.0	15.3	5.0	2.4	19.2	10.5	4.2	20.0	11.7	4.5
13.4	3.5	0.0	16.6	5.1	2.5	21.2	11.1	4.2	22.1	12.3	4.6
14.7	3.5	0.0	18.3	5.2	2.5	23.9	11.8	4.3	24.9	13.0	4.7
17.1	3.1	0.0	21.6	5.4	2.5	28.5	12.6	4.5	29.8	14.1	5.0
15.3	3.5	0.0	19.1	5.2	2.5	24.5	12.0	4.4	26.0	13.3	4.8
17.1	3.5	0.0	21.8	5.3	2.5	28.9	12.6	4.5	30.2	14.1	5.0
18.0	3.6	0.0	23.4	5.4	2.5	31.4	12.9	4.5	32.9	14.4	5.0
16.4	3.5	0.0	20.7	5.3	2.5	27.1	12.4	4.5	28.3	13.8	4.9
16.4	3.5	0.0	20.7	5.3	2.5	27.2	12.4	4.5	28.3	13.8	4.9
14.9	3.5	0.0	18.5	5.2	2.5	24.0	11.9	4.4	25.0	13.1	4.8
14.9	3.5	0.0	18.6	5.2	2.5	24.1	11.9	4.4	25.2	13.1	4.8
16.1	3.5	0.0	20.3	5.3	2.5	26.7	12.3	4.4	27.8	13.7	4.9
16.5	3.5	0.0	20.9	5.3	2.5	27.5	12.4	4.5	28.7	13.8	4.9
17.1	3.5	0.0	21.7	5.4	2.5	28.7	12.6	4.5	30.0	14.1	5.0
16.3	3.5	0.0	20.6	5.3	2.5	27.1	12.4	4.5	28.3	13.8	4.9
16.9	3.5	0.0	21.5	5.3	2.5	28.3	12.6	4.5	29.6	14.0	5.0
17.8	3.6	0.0	23.0	5.4	2.5	30.7	12.8	4.5	32.2	14.4	5.0
17.1	3.5	0.0	21.8	5.4	2.5	28.8	12.6	4.5	30.1	14.1	5.0
16.4	3.5	0.0	20.7	5.3	2.5	27.2	12.4	4.5	28.4	13.8	4.9
16.9	3.5	0.0	21.4	5.3	2.5	28.2	12.6	4.5	29.4	14.0	5.0
16.3	3.5	0.0	20.6	5.3	2.5	27.0	12.4	4.5	28.2	13.8	4.9
15.8	3.5	0.0	19.8	5.3	2.5	25.9	12.2	4.4	27.1	13.5	4.9
16.9	3.5	0.0	21.5	5.3	2.5	28.4	12.6	4.5	29.6	14.0	5.0
16.5	3.5	0.0	20.9	5.3	2.5	27.5	12.4	4.5	28.7	13.9	4.9
15.8	3.5	0.0	19.8	5.3	2.5	25.9	12.2	4.4	27.0	13.5	4.9
16.0	3.5	0.0	20.0	5.3	2.5	26.2	12.3	4.4	27.3	13.6	4.9
15.2	3.5	0.0	18.9	5.2	2.5	24.6	12.0	4.4	25.7	13.3	4.8
17.8	3.6	0.0	23.0	5.4	2.5	30.8	12.8	4.5	32.3	14.4	5.0
16.4	3.5	0.0	20.8	5.3	2.5	27.3	12.4	4.5	28.5	13.8	4.9
16.3	3.5	0.0	20.6	5.3	2.5	27.1	12.4	4.5	28.3	13.8	4.9
15.8	3.5	0.0	19.9	5.3	2.5	26.1	12.2	4.4	27.2	13.5	4.9
15.3	3.5	0.0	19.2	5.2	2.5	25.0	12.0	4.4	26.1	13.3	4.8
16.3	3.5	0.0	20.5	5.3	2.5	27.0	12.4	4.5	28.2	13.7	4.9
15.7	3.5	0.0	19.7	5.3	2.5	25.7	12.2	4.4	26.8	13.5	4.9
14.6	3.5	0.0	18.2	5.2	2.5	23.6	11.8	4.3	24.7	13.0	4.7
14.5	3.5	0.0	18.0	5.2	2.5	23.3	11.8	4.3	24.3	12.9	4.8
16.3	3.5	0.0	20.7	5.3	2.5	27.4	12.3	4.4	28.6	13.7	4.9
15.4	3.5	0.0	19.2	5.2	2.5	25.1	12.1	4.4	26.2	13.3	4.8
15.5	3.5	0.0	19.4	5.2	2.5	25.3	12.1	4.4	26.4	13.4	4.8
15.0	3.5	0.0	18.7	5.2	2.5	24.4	11.9	4.4	25.4	13.1	4.8
14.4	3.5	0.0	17.9	5.2	2.5	23.2	11.7	4.3	24.2	12.9	4.7
15.2	3.5	0.0	19.0	5.2	2.5	24.8	12.0	4.4	25.9	13.3	4.8
15.1	3.5	0.0	18.9	5.2	2.5	24.6	12.0	4.4	25.6	13.2	4.8
16.2	3.5	0.0	20.4	5.3	2.5	26.8	12.3	4.4	28.0	13.7	4.9
14.8	3.5	0.0	18.5	5.2	2.5	24.0	11.9	4.4	25.1	13.1	4.8
17.3	3.5	0.0	22.1	5.3	2.5	29.5	12.6	4.5	30.9	14.1	5.0
17.9	3.6	0.0	23.2	5.4	2.5	31.3	12.8	4.5	32.8	14.4	5.0
15.7	3.5	0.0	19.7	5.3	2.5	25.8	12.2	4.4	27.0	13.5	4.9
15.1	3.5	0.0	18.8	5.2	2.5	24.4	12.0	4.4	25.4	13.2	4.8
15.7	3.5	0.0	19.7	5.3	2.5	25.8	12.1	4.4	26.9	13.5	4.8
14.7	3.5	0.0	18.2	5.2	2.5	23.6	11.8	4.3	24.6	13.0	4.7
15.0	3.5	0.0	18.6	5.2	2.5	24.2	11.9	4.4	25.2	13.1	4.8
16.9	3.5	0.0	21.5	5.3	2.5	28.6	12.5	4.5	29.9	14.0	4.9

FLIGHT ALTITUDE = 10,000 FT.   COMBINATION: E

SIGMAP = 1.5 SIGMAT = 2.0 SIGMARH = 8.0

TARGET #1 DET	TARGET #1 CLASS (NMI)	TARGET #1 ID	TARGET #2 DET	TARGET #2 CLASS (NMI)	TARGET #2 ID	TARGET #3 DET	TARGET #3 CLASS (NMI)	TARGET #3 ID	TARGET #4 DET	TARGET #4 CLASS (NMI)	TARGET #4 ID
15.6	3.5	0.0	19.7	5.2	2.5	25.8	12.1	4.4	27.0	13.4	4.8
11.4	3.4	0.0	14.1	4.9	2.4	17.6	10.0	4.1	18.3	11.1	4.4
14.8	3.5	0.0	18.5	5.2	2.5	24.2	11.8	4.3	25.3	13.0	4.7
14.3	3.5	0.0	17.9	5.1	2.5	23.3	11.6	4.3	24.3	12.8	4.7
14.3	3.5	0.0	17.9	5.1	2.5	23.3	11.6	4.3	24.3	12.8	4.7
14.3	3.5	0.0	17.8	5.1	2.5	23.1	11.6	4.3	24.1	12.8	4.7
14.5	3.5	0.0	18.2	5.2	2.5	23.6	11.7	4.3	24.7	12.9	4.7
11.5	3.4	0.0	14.3	4.9	2.4	17.9	10.0	4.1	18.6	11.2	4.4
13.7	3.5	0.0	17.1	5.1	2.5	22.0	11.3	4.3	23.0	12.5	4.6
14.6	3.5	0.0	18.3	5.2	2.5	23.9	11.8	4.3	25.0	12.9	4.7
15.8	3.5	0.0	19.9	5.3	2.5	26.0	12.2	4.4	27.2	13.5	4.9
14.3	3.5	0.0	17.7	5.2	2.5	22.9	11.6	4.3	23.8	12.8	4.7
15.9	3.5	0.0	20.0	5.3	2.5	26.3	12.2	4.4	27.4	13.5	4.9
16.8	3.5	0.0	21.5	5.3	2.5	28.6	12.5	4.5	29.9	13.9	4.9
15.4	3.5	0.0	19.2	5.2	2.5	25.1	12.0	4.4	26.2	13.3	4.8
15.3	3.5	0.0	19.1	5.2	2.5	24.9	12.0	4.4	26.0	13.3	4.8
14.4	3.5	0.0	17.9	5.2	2.5	23.0	11.7	4.3	24.0	12.9	4.7
14.2	3.5	0.0	17.7	5.2	2.5	22.8	11.6	4.3	23.8	12.8	4.7
15.0	3.5	0.0	18.8	5.2	2.5	24.5	11.9	4.4	25.5	13.2	4.8
15.5	3.5	0.0	19.4	5.2	2.5	25.4	12.1	4.4	26.5	13.4	4.8
14.8	3.5	0.0	18.4	5.2	2.5	23.9	11.8	4.4	25.0	13.0	4.8
12.5	3.4	0.0	15.5	5.0	2.4	19.6	10.6	4.2	20.3	11.8	4.5
15.0	3.5	0.0	18.8	5.2	2.5	24.6	11.9	4.3	25.7	13.1	4.8
15.1	3.5	0.0	19.0	5.2	2.5	24.9	11.9	4.3	26.0	13.2	4.8
14.1	3.5	0.0	17.5	5.1	2.5	22.6	11.5	4.3	23.6	12.7	4.7
13.6	3.5	0.0	16.9	5.1	2.5	21.5	11.3	4.3	22.4	12.4	4.6
14.3	3.5	0.0	17.7	5.1	2.5	22.9	11.6	4.3	23.9	12.8	4.7
12.1	3.4	0.0	15.0	5.0	2.4	18.9	10.4	4.1	19.6	11.6	4.4
13.3	3.5	0.0	16.5	5.1	2.5	21.0	11.1	4.2	21.8	12.3	4.6
14.7	3.5	0.0	18.4	5.2	2.5	24.0	11.8	4.3	25.0	13.0	4.7
17.4	3.6	0.0	22.2	5.4	2.5	29.2	12.7	4.5	30.6	14.2	5.0
15.1	3.5	0.0	18.8	5.2	2.5	24.5	11.9	4.4	25.5	13.2	4.8
17.0	3.5	0.0	21.6	5.3	2.5	28.5	12.6	4.5	29.8	14.0	5.0
17.9	3.6	0.0	23.2	5.4	2.5	31.2	12.8	4.5	32.7	14.4	5.0
16.3	3.5	0.0	20.6	5.3	2.5	27.0	12.4	4.5	28.2	13.8	4.9
16.5	3.5	0.0	20.8	5.3	2.5	27.3	12.4	4.5	28.5	13.8	4.9
15.3	3.5	0.0	19.0	5.2	2.5	24.7	12.0	4.4	25.7	13.3	4.8
14.8	3.5	0.0	18.4	5.2	2.5	23.9	11.8	4.4	24.9	13.1	4.8
16.1	3.5	0.0	20.2	5.3	2.5	26.5	12.3	4.4	27.7	13.6	4.9
16.6	3.5	0.0	21.0	5.3	2.5	27.6	12.5	4.5	28.9	13.9	4.9
17.4	3.6	0.0	22.2	5.4	2.5	29.4	12.7	4.5	30.8	14.3	5.0
16.2	3.5	0.0	20.4	5.3	2.5	26.7	12.3	4.4	27.9	13.7	4.9
16.9	3.5	0.0	21.4	5.3	2.5	28.2	12.6	4.5	29.5	14.0	5.0
17.7	3.6	0.0	22.7	5.4	2.5	30.4	12.8	4.5	31.9	14.3	5.0
17.2	3.6	0.0	21.9	5.4	2.5	28.9	12.7	4.5	30.2	14.1	5.0
16.9	3.5	0.0	21.4	5.3	2.5	28.2	12.6	4.5	29.5	14.0	5.0
16.6	3.5	0.0	21.1	5.3	2.5	27.7	12.5	4.5	28.9	13.9	4.9
15.7	3.5	0.0	19.7	5.3	2.5	25.7	12.2	4.4	26.8	13.5	4.9
16.9	3.5	0.0	21.4	5.3	2.5	28.3	12.6	4.5	29.5	14.0	5.0
16.4	3.5	0.0	20.7	5.3	2.5	27.2	12.4	4.5	28.4	13.8	4.9
16.8	3.5	0.0	21.3	5.3	2.5	28.0	12.5	4.5	29.3	14.0	5.0
15.6	3.5	0.0	19.5	5.3	2.5	25.5	12.1	4.4	26.6	13.4	4.8
15.9	3.5	0.0	19.9	5.3	2.5	26.0	12.2	4.4	27.1	13.6	4.9
17.7	3.6	0.0	22.8	5.4	2.5	30.6	12.8	4.5	32.0	14.3	5.0
16.5	3.5	0.0	20.8	5.3	2.5	27.4	12.4	4.5	28.6	13.8	4.9
16.4	3.5	0.0	20.7	5.3	2.5	27.2	12.4	4.5	28.4	13.8	4.9
16.1	3.5	0.0	20.3	5.3	2.5	26.7	12.3	4.4	27.8	13.7	4.9
15.3	3.5	0.0	19.1	5.2	2.5	24.9	12.0	4.4	26.0	13.3	4.8
16.2	3.5	0.0	20.4	5.3	2.5	26.7	12.3	4.4	27.9	13.7	4.9
15.2	3.5	0.0	18.9	5.2	2.5	24.5	12.0	4.4	25.6	13.2	4.8
16.0	3.5	0.0	20.1	5.3	2.5	26.3	12.3	4.4	27.5	13.6	4.9
14.4	3.5	0.0	17.9	5.2	2.5	23.2	11.7	4.3	24.2	12.9	4.7
14.4	3.5	0.0	17.9	5.2	2.5	23.1	11.7	4.3	24.1	12.9	4.7
16.2	3.5	0.0	20.6	5.3	2.5	27.2	12.3	4.4	28.4	13.7	4.9
15.4	3.5	0.0	19.2	5.2	2.5	25.1	12.0	4.4	26.2	13.3	4.8
15.5	3.5	0.0	19.4	5.2	2.5	25.3	12.1	4.4	26.4	13.4	4.8
15.4	3.5	0.0	19.3	5.2	2.5	25.2	12.1	4.4	26.3	13.3	4.8
14.4	3.5	0.0	17.9	5.2	2.5	23.1	11.7	4.3	24.1	12.9	4.7
15.1	3.5	0.0	18.9	5.2	2.5	24.7	12.0	4.4	25.7	13.2	4.8
15.1	3.5	0.0	18.9	5.2	2.5	24.6	12.0	4.4	25.7	13.2	4.8
16.5	3.5	0.0	20.8	5.3	2.5	27.4	12.4	4.5	28.6	13.8	4.9
14.6	3.5	0.0	18.1	5.2	2.5	23.5	11.8	4.3	24.5	12.9	4.7
17.1	3.5	0.0	21.9	5.3	2.5	29.1	12.6	4.5	30.5	14.1	5.0
17.8	3.5	0.0	23.1	5.4	2.5	31.1	12.8	4.5	32.6	14.4	5.0
15.7	3.5	0.0	19.7	5.3	2.5	25.8	12.2	4.4	26.9	13.5	4.8
15.1	3.5	0.0	18.8	5.2	2.5	24.4	12.0	4.4	25.4	13.2	4.8
16.1	3.5	0.0	20.3	5.3	2.5	26.7	12.3	4.4	27.8	13.6	4.9
14.6	3.5	0.0	18.2	5.2	2.5	23.6	11.8	4.3	24.6	13.0	4.7
14.9	3.5	0.0	18.5	5.2	2.5	24.0	11.9	4.4	25.0	13.1	4.8
16.9	3.5	0.0	21.6	5.3	2.5	28.7	12.5	4.5	30.1	14.0	4.9

FLIGHT ALTITUDE = 10,000 COMBINATION: F

SIGMAP = 1.5 SIGMAT = 4.0 SIGMARH = 8.0

TARGET #1			TARGET #2			TARGET #3			TARGET #4		
DET	CLASS (NMI)	ID	DET	CLASS (NMI)	ID	DET	CLASS (NMI)	ID	DET	CLASS (NMI)	ID
16.6	3.5	0.0	21.1	5.3	2.5	28.0	12.4	4.4	29.2	13.8	4.9
11.0	3.3	0.0	13.3	4.8	2.4	16.6	9.6	4.0	17.2	10.6	4.3
14.4	3.5	0.0	18.0	5.1	2.5	23.4	11.7	4.3	24.4	12.8	4.7
14.0	3.5	0.0	17.5	5.1	2.5	22.6	11.4	4.3	23.5	12.6	4.6
14.1	3.5	0.0	17.6	5.1	2.5	22.8	11.5	4.3	23.7	12.7	4.7
14.3	3.5	0.0	17.9	5.1	2.5	23.2	11.7	4.3	24.2	12.8	4.7
15.5	3.5	0.0	19.5	5.2	2.5	25.6	12.0	4.4	26.7	13.3	4.8
11.2	3.3	0.0	13.7	4.9	2.4	17.1	9.8	4.0	17.8	10.8	4.3
13.4	3.5	0.0	16.7	5.1	2.5	21.4	11.1	4.2	22.3	12.3	4.6
14.7	3.5	0.0	18.4	5.2	2.5	24.0	11.8	4.3	25.1	13.0	4.7
16.4	3.5	0.0	20.7	5.3	2.5	27.2	12.4	4.5	28.4	13.8	4.9
13.6	3.5	0.0	16.9	5.1	2.5	21.7	11.3	4.3	22.6	12.5	4.6
15.6	3.5	0.0	19.6	5.2	2.5	25.7	12.1	4.4	26.8	13.4	4.8
16.5	3.5	0.0	21.1	5.3	2.5	28.0	12.4	4.4	29.3	13.8	4.9
15.4	3.5	0.0	19.4	5.2	2.5	25.3	12.1	4.4	26.4	13.3	4.8
15.3	3.5	0.0	19.2	5.2	2.5	25.0	12.0	4.4	26.1	13.3	4.8
15.1	3.5	0.0	18.9	5.2	2.5	24.6	12.0	4.4	25.7	13.2	4.8
15.0	3.5	0.0	18.7	5.2	2.5	24.2	11.9	4.4	25.3	13.2	4.8
14.0	3.5	0.0	17.4	5.1	2.5	22.4	11.5	4.3	23.4	12.7	4.7
14.7	3.5	0.0	18.3	5.2	2.5	23.8	11.8	4.3	24.9	13.0	4.8
15.6	3.5	0.0	19.6	5.3	2.5	25.6	12.1	4.4	26.7	13.4	4.8
11.9	3.4	0.0	14.7	4.9	2.4	18.5	10.3	4.1	19.2	11.5	4.4
14.6	3.5	0.0	18.3	5.2	2.5	23.8	11.8	4.3	24.9	12.9	4.7
14.8	3.5	0.0	18.5	5.2	2.5	24.2	11.8	4.3	25.3	13.0	4.7
13.9	3.5	0.0	17.3	5.1	2.5	22.2	11.4	4.3	23.2	12.6	4.7
13.8	3.5	0.0	17.1	5.1	2.5	21.9	11.4	4.3	22.8	12.5	4.7
15.0	3.5	0.0	18.7	5.2	2.5	24.4	11.9	4.4	25.5	13.1	4.8
14.6	3.5	0.0	18.3	5.2	2.5	23.8	11.8	4.3	24.8	12.9	4.7
11.6	3.4	0.0	14.3	4.9	2.4	17.9	10.1	4.1	18.6	11.2	4.4
12.9	3.4	0.0	16.0	5.0	2.5	20.4	10.9	4.2	21.2	12.1	4.6
18.0	3.6	0.0	23.1	5.4	2.6	30.6	12.9	4.5	32.0	14.5	5.1
14.6	3.5	0.0	18.1	5.2	2.5	23.4	11.8	4.3	24.4	12.9	4.7
16.6	3.5	0.0	21.1	5.3	2.5	27.8	12.5	4.5	29.0	13.9	4.9
17.6	3.5	0.0	22.8	5.4	2.5	30.5	12.7	4.5	32.0	14.3	5.0
16.1	3.5	0.0	20.3	5.3	2.5	26.6	12.3	4.4	27.7	13.7	4.9
16.5	3.5	0.0	20.8	5.3	2.5	27.3	12.4	4.5	28.5	13.8	4.9
15.9	3.5	0.0	19.9	5.3	2.5	25.9	12.2	4.4	27.0	13.6	4.9
14.4	3.5	0.0	17.9	5.2	2.5	23.1	11.7	4.3	24.1	12.9	4.7
15.8	3.5	0.0	19.9	5.3	2.5	26.0	12.2	4.4	27.1	13.5	4.9
16.6	3.5	0.0	21.0	5.3	2.5	27.7	12.5	4.5	28.9	13.9	4.9
17.8	3.6	0.0	22.8	5.4	2.6	30.3	12.9	4.5	31.8	14.4	5.0
15.7	3.5	0.0	19.8	5.3	2.5	25.9	12.2	4.4	27.0	13.5	4.9
16.6	3.5	0.0	21.1	5.3	2.5	27.7	12.5	4.5	29.0	13.9	4.9
17.5	3.6	0.0	22.4	5.4	2.5	30.0	12.7	4.5	31.4	14.3	5.0
17.3	3.6	0.0	22.1	5.4	2.5	29.3	12.7	4.5	30.6	14.2	5.0
16.7	3.5	0.0	21.1	5.3	2.5	27.8	12.5	4.5	29.0	13.9	4.9
17.1	3.5	0.0	21.7	5.4	2.5	28.6	12.6	4.5	29.9	14.1	5.0
15.6	3.5	0.0	19.5	5.3	2.5	25.5	12.1	4.4	26.6	13.4	4.8
16.7	3.5	0.0	21.1	5.3	2.5	27.8	12.5	4.5	29.1	13.9	4.9
16.1	3.5	0.0	20.3	5.3	2.5	26.6	12.3	4.4	27.8	13.7	4.9
17.3	3.6	0.0	22.0	5.4	2.5	29.1	12.7	4.5	30.4	14.2	5.0
15.1	3.5	0.0	18.8	5.2	2.5	24.5	11.9	4.4	25.5	13.2	4.8
15.7	3.5	0.0	19.7	5.3	2.5	25.7	12.2	4.4	26.8	13.5	4.9
17.4	3.5	0.0	22.4	5.4	2.5	30.0	12.7	4.5	31.4	14.2	5.0
16.5	3.5	0.0	20.9	5.3	2.5	27.5	12.4	4.5	28.8	13.9	4.9
16.3	3.5	0.0	20.6	5.3	2.5	27.1	12.4	4.5	28.3	13.8	4.9
16.6	3.5	0.0	21.1	5.3	2.5	27.7	12.5	4.5	28.9	13.9	4.9
15.1	3.5	0.0	18.8	5.2	2.5	24.5	11.9	4.4	25.5	13.2	4.8
15.9	3.5	0.0	19.9	5.3	2.5	26.1	12.2	4.4	27.3	13.5	4.9
15.0	3.5	0.0	18.6	5.2	2.5	24.1	11.9	4.4	25.2	13.1	4.8
16.4	3.5	0.0	20.7	5.3	2.5	27.2	12.4	4.5	28.3	13.8	4.9
13.8	3.5	0.0	17.2	5.1	2.5	22.1	11.4	4.3	23.0	12.6	4.7
14.2	3.5	0.0	17.6	5.2	2.5	22.6	11.6	4.3	23.6	12.8	4.7
15.1	3.5	0.0	18.9	5.2	2.5	24.6	12.0	4.4	25.7	13.2	4.8
16.0	3.5	0.0	20.3	5.3	2.5	26.7	12.2	4.4	27.9	13.6	4.9
15.3	3.5	0.0	19.1	5.2	2.5	25.0	12.0	4.4	26.0	13.3	4.8
15.3	3.5	0.0	19.2	5.2	2.5	25.0	12.0	4.4	26.1	13.3	4.8
16.1	3.5	0.0	20.3	5.3	2.5	26.6	12.3	4.4	27.8	13.7	4.9
14.2	3.5	0.0	17.7	5.2	2.5	22.8	11.6	4.3	23.8	12.8	4.7
14.9	3.5	0.0	18.5	5.2	2.5	24.1	11.9	4.4	25.1	13.1	4.8
16.8	3.5	0.0	21.3	5.3	2.5	28.1	12.5	4.5	29.4	14.4	5.0
13.9	3.5	0.0	17.3	5.1	2.5	22.2	11.4	4.3	23.1	12.6	4.7
16.7	3.5	0.0	21.3	5.3	2.5	28.3	12.5	4.5	29.6	13.9	4.9
17.6	3.5	0.0	22.7	5.4	2.5	30.5	12.7	4.5	32.0	14.3	5.0
15.6	3.5	0.0	19.5	5.3	2.5	25.5	12.1	4.4	26.6	13.4	4.8
14.9	3.5	0.0	18.5	5.2	2.5	23.9	11.9	4.4	25.0	13.1	4.8
16.8	3.5	0.0	21.4	5.3	2.5	28.3	12.5	4.5	29.5	14.0	5.0
14.5	3.5	0.0	18.0	5.2	2.5	23.2	11.7	4.3	24.2	12.9	4.7
14.6	3.5	0.0	18.1	5.2	2.5	23.5	11.8	4.3	24.5	13.0	4.8
17.0	3.5	0.0	21.7	5.3	2.5	28.8	12.6	4.5	30.2	14.0	4.9

APPENDIX 9

CORRELATION RESULTS FOR NORMALITY TEST

Correlation(r) Results

a) Height = 1,500 Ft.

Combination	c1	c4	c7	c10
A	0.982	0.983	0.983	0.984
B	0.983	0.982	0.984	0.984
C	0.991	0.991	0.992	0.992
D	0.980	0.979	0.981	0.981
E	0.982	0.982	0.977	0.981
F	0.990	0.991	0.992	0.991

b) Height = 5,000 Ft.

Combination	c1	c4	c7	c10
A	0.987	0.989	0.991	0.991
B	0.987	0.988	0.989	0.989
C	0.989	0.991	0.992	0.992
D	0.989	0.991	0.992	0.992
E	0.989	0.991	0.991	0.991
F	0.989	0.991	0.991	0.991

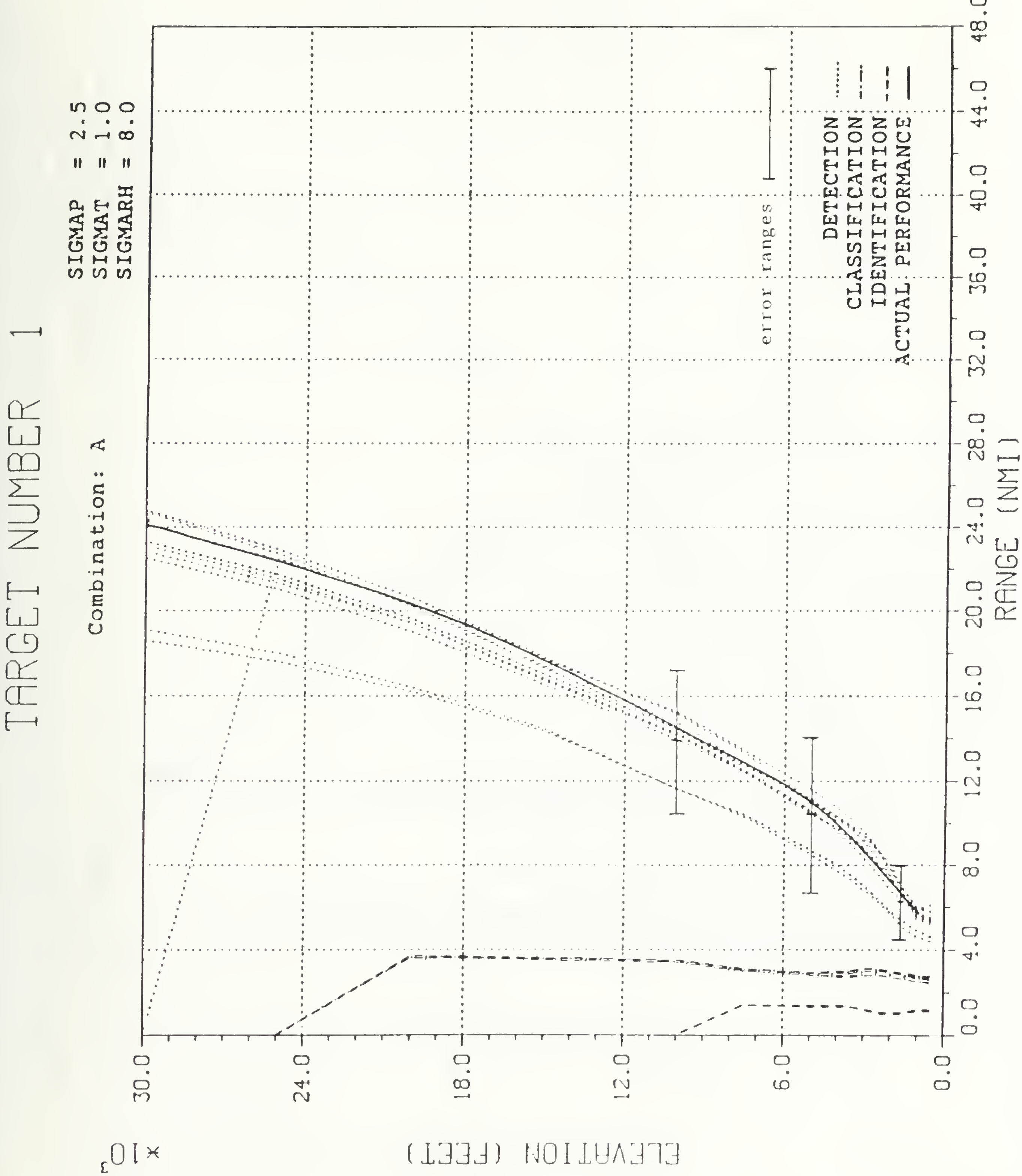
c) Height = 10,000 Ft.

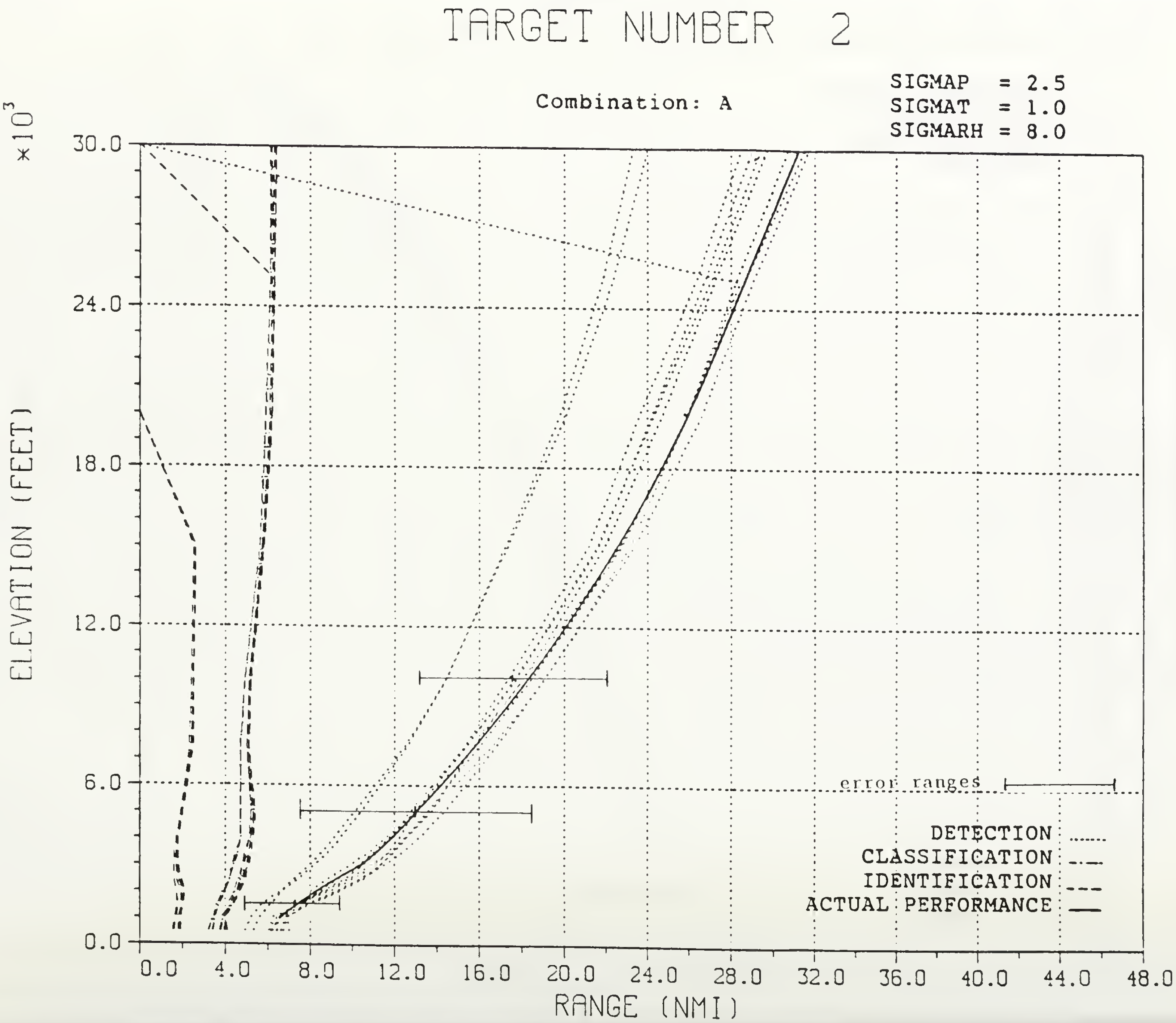
Combination	c1	c4	c7	c10
A	0.985	0.991	0.992	0.991
B	0.981	0.987	0.989	0.988
C	0.987	0.984	0.985	0.985
D	0.978	0.984	0.985	0.985
E	0.982	0.989	0.989	0.989
F	0.982	0.989	0.989	0.988

APPENDIX 10

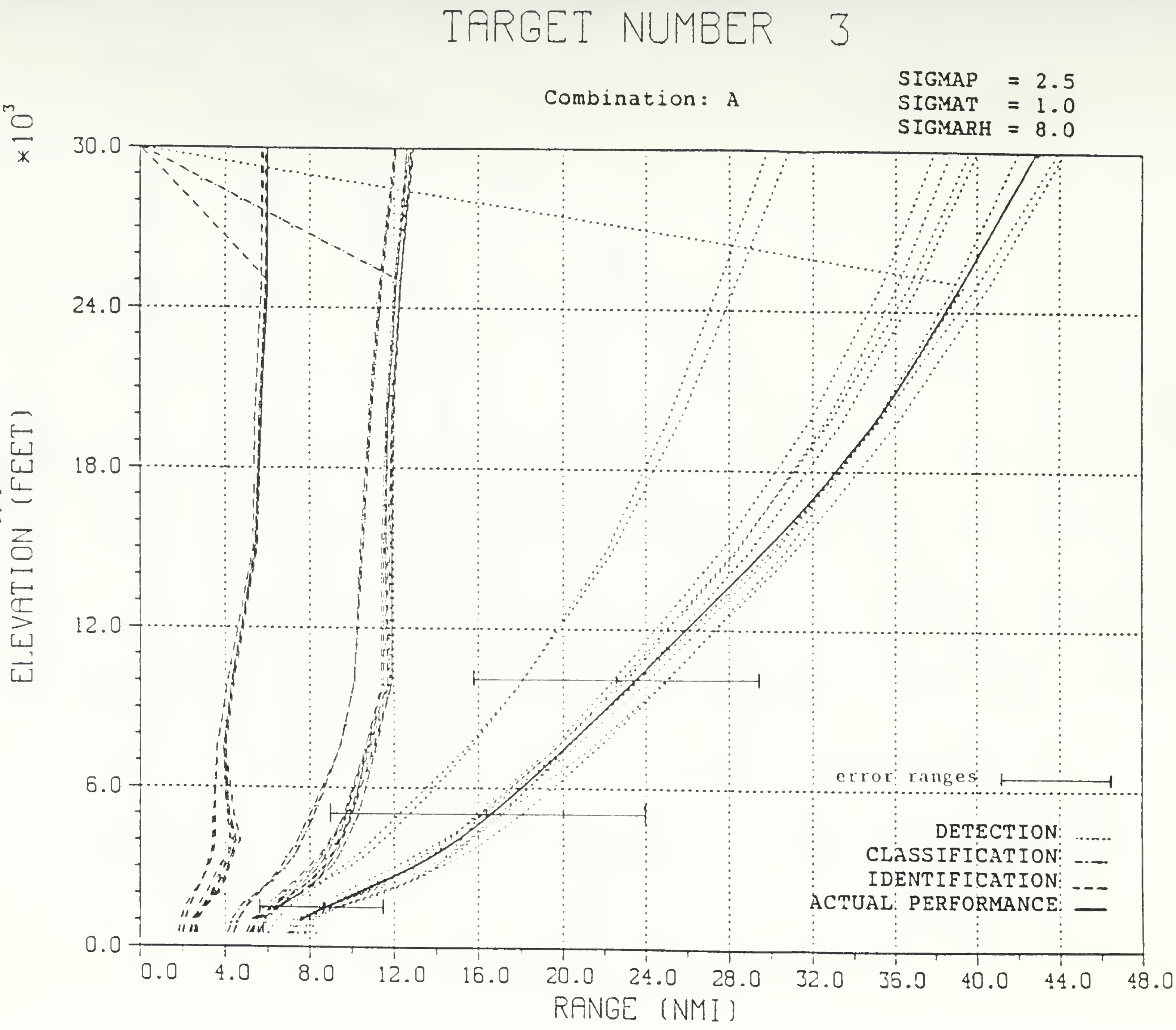
VISUAL DISPLAY OF DITHERED AND UNDITHERED PROFILES PERFORMANCES BY THE PROGRAM UFLR

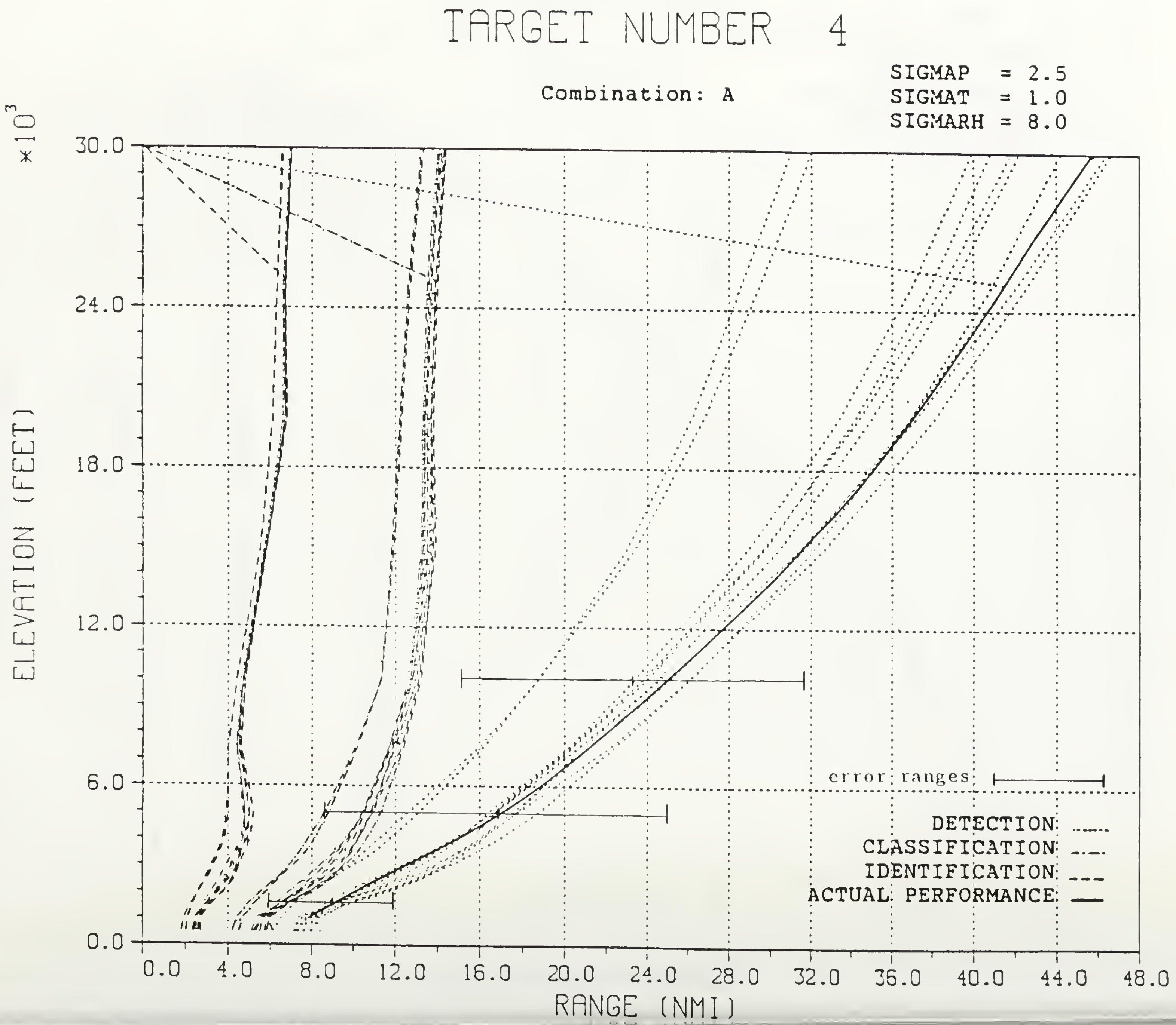
INPUT RADIOSONDE PROFILE: CAL 1





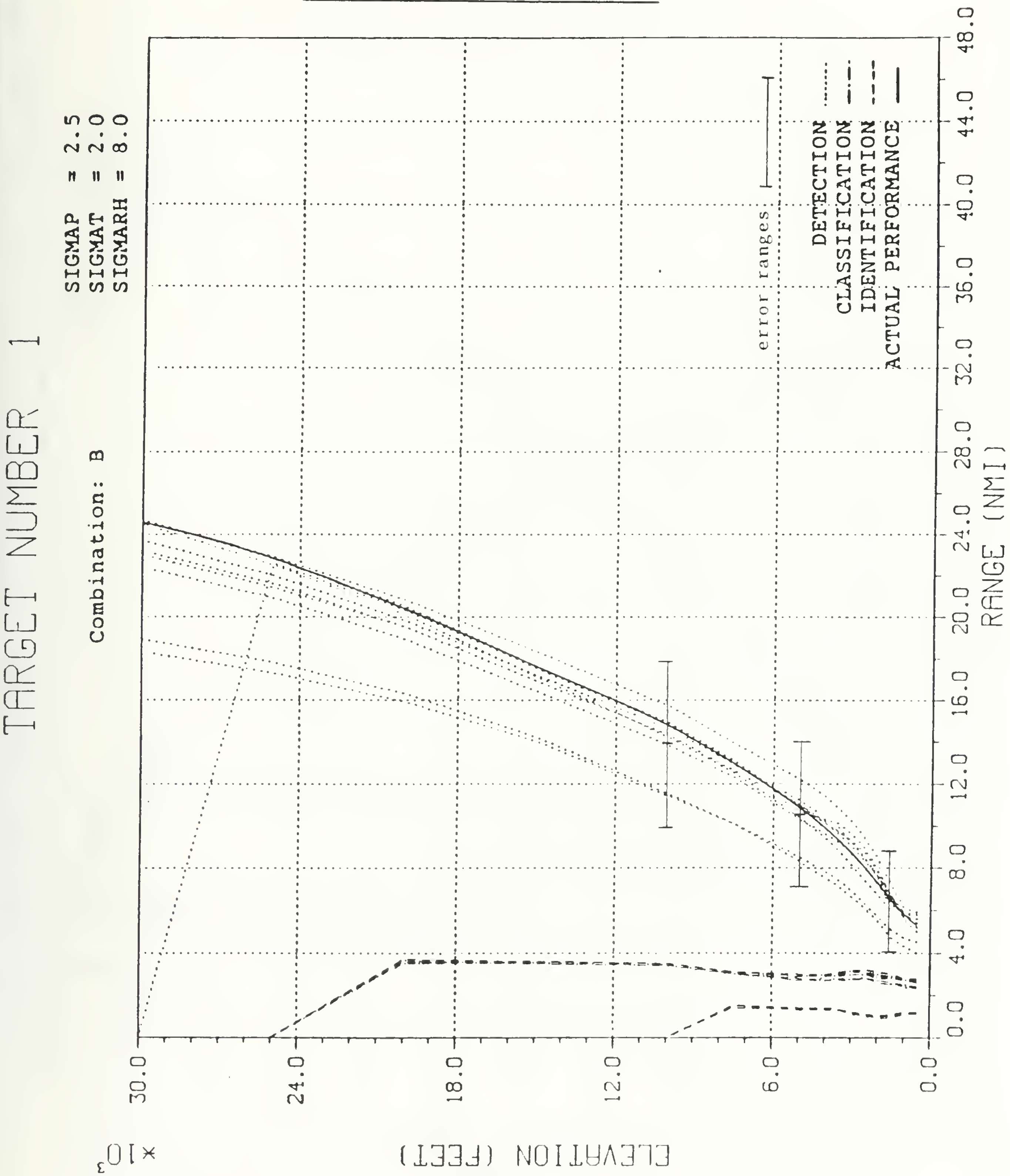
TARGET NUMBER 2
Combination: A
SIGMAP = 2.5
SIGMAT = 1.0
SIGMARH = 8.0
$\times 10^3$
ELEVATION (FEET)
30.0
24.0
18.0
12.0
6.0
0.0
RANGE (NMI)
0.0
4.0
8.0
12.0
16.0
20.0
24.0
28.0
32.0
36.0
40.0
44.0
48.0
error ranges
DETECTION
CLASSIFICATION
IDENTIFICATION
ACTUAL PERFORMANCE

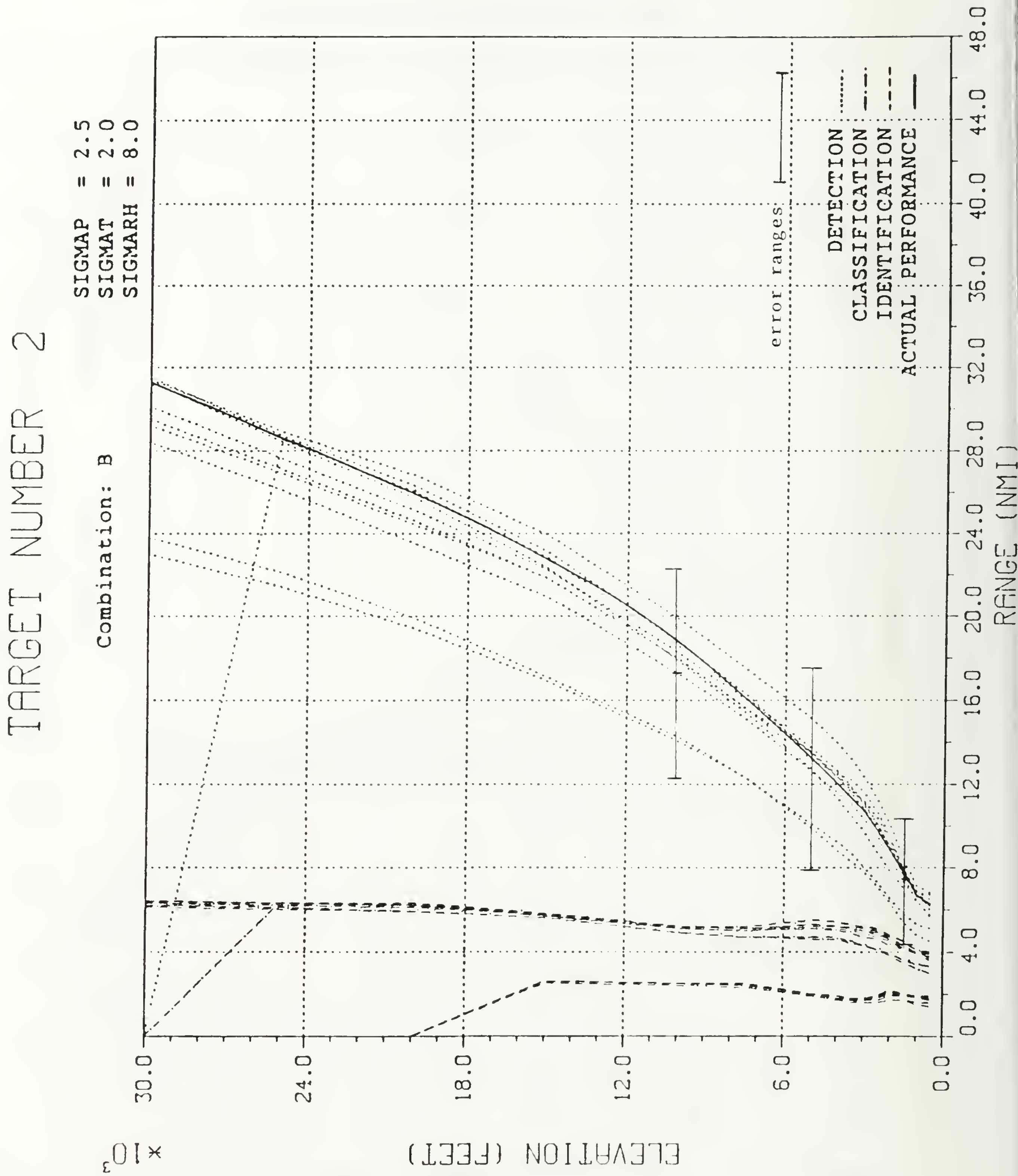

TARGET NUMBER 3
Combination: A
SIGMAP = 2.5
SIGMAT = 1.0
SIGMARH = 8.0
ELEVATION (FEET)
×10³
30.0
24.0
18.0
12.0
6.0
0.0
RANGE (NMI)
0.0
4.0
8.0
12.0
16.0
20.0
24.0
28.0
32.0
36.0
40.0
44.0
48.0
error ranges
DETECTION
CLASSIFICATION
IDENTIFICATION
ACTUAL PERFORMANCE

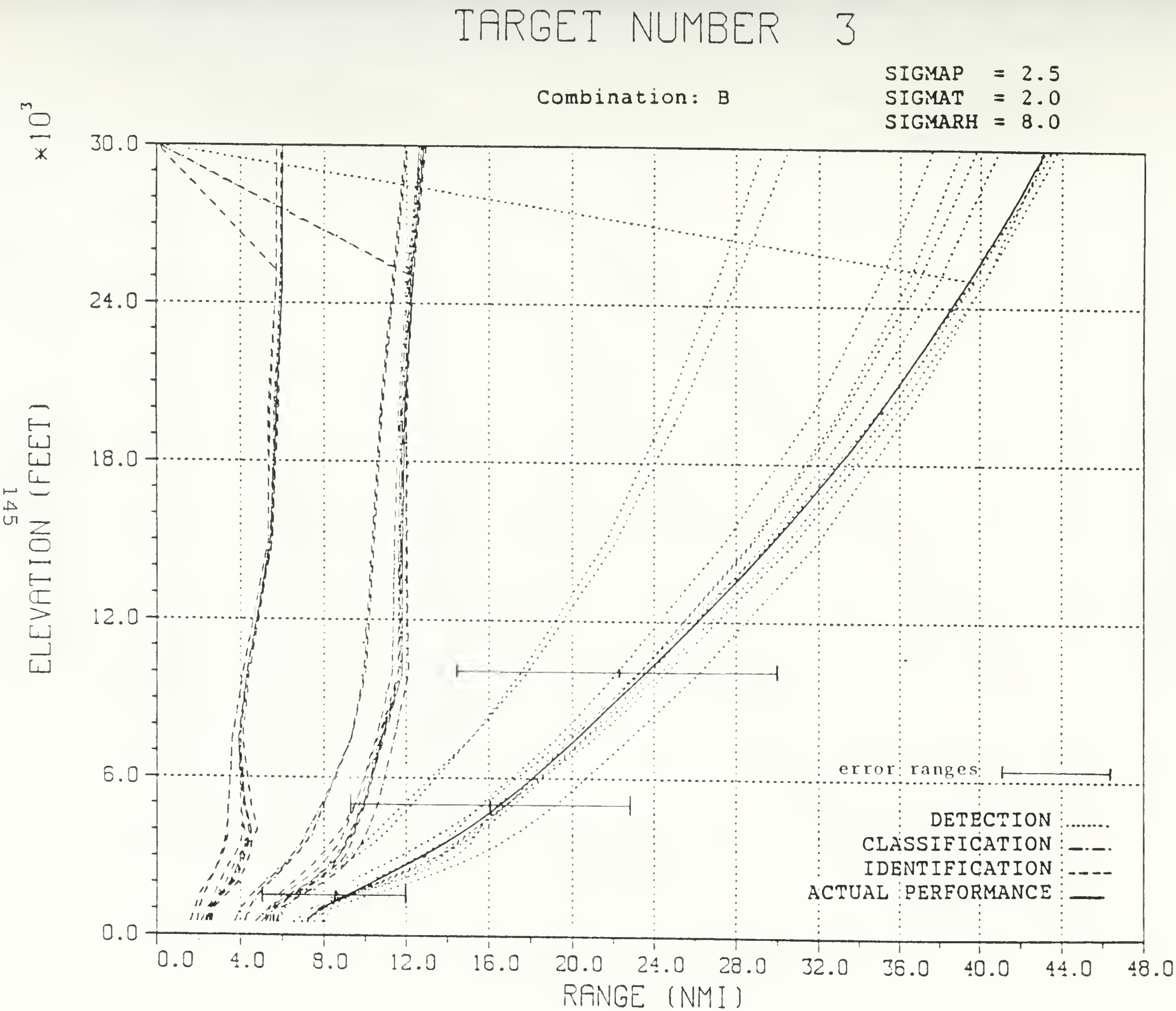


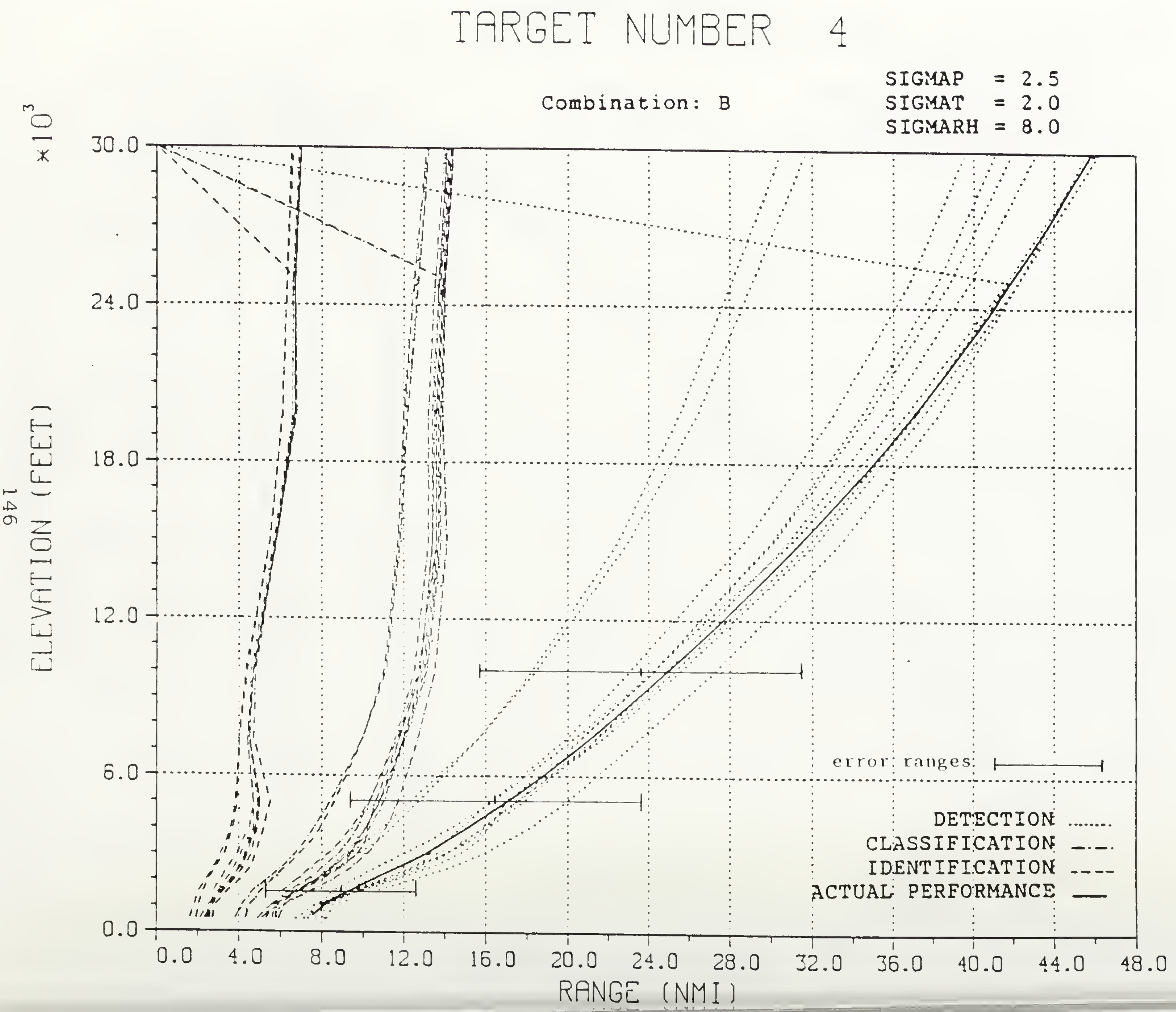
TARGET NUMBER 4
Combination: A
SIGMAP = 2.5
SIGMAT = 1.0
SIGMARH = 8.0
ELEVATION (FEET)
$\times 10^3$
30.0
24.0
18.0
12.0
6.0
0.0
RANGE (NMI)
0.0
4.0
8.0
12.0
16.0
20.0
24.0
28.0
32.0
36.0
40.0
44.0
48.0
error ranges
DETECTION
CLASSIFICATION
IDENTIFICATION
ACTUAL PERFORMANCE

INPUT RADIOSONDE PROFILE: CAL 1

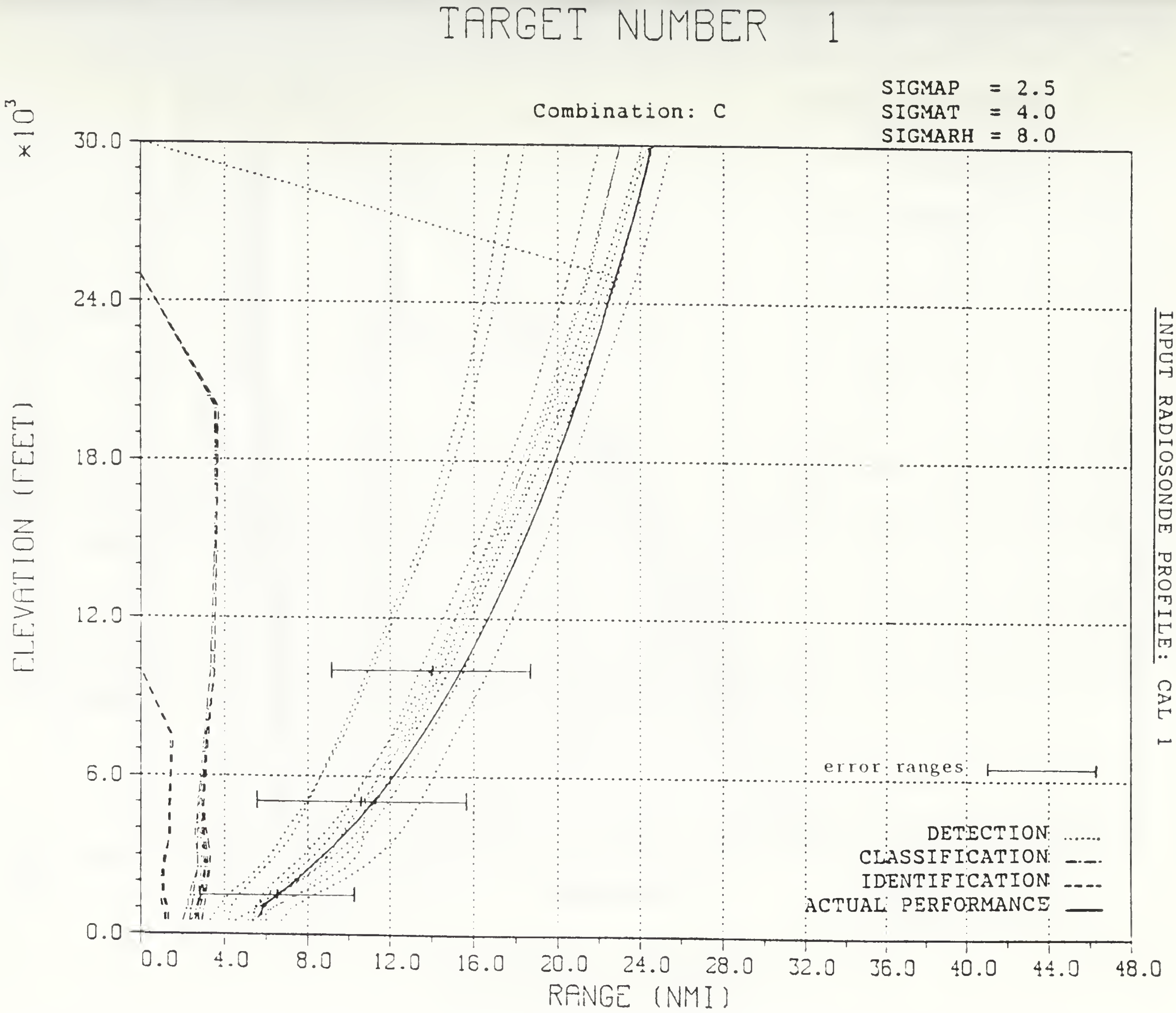



TARGET NUMBER 2
Combination: B
SIGMAP = 2.5
SIGMAT = 2.0
SIGMARH = 8.0
error ranges
DETECTION
CLASSIFICATION
IDENTIFICATION
ACTUAL PERFORMANCE
RANGE (NMI)
ELEVATION (FEET)
x10^3
0.0
4.0
8.0
12.0
16.0
20.0
24.0
28.0
32.0
36.0
40.0
44.0
48.0
0.0
6.0
12.0
18.0
24.0
30.0

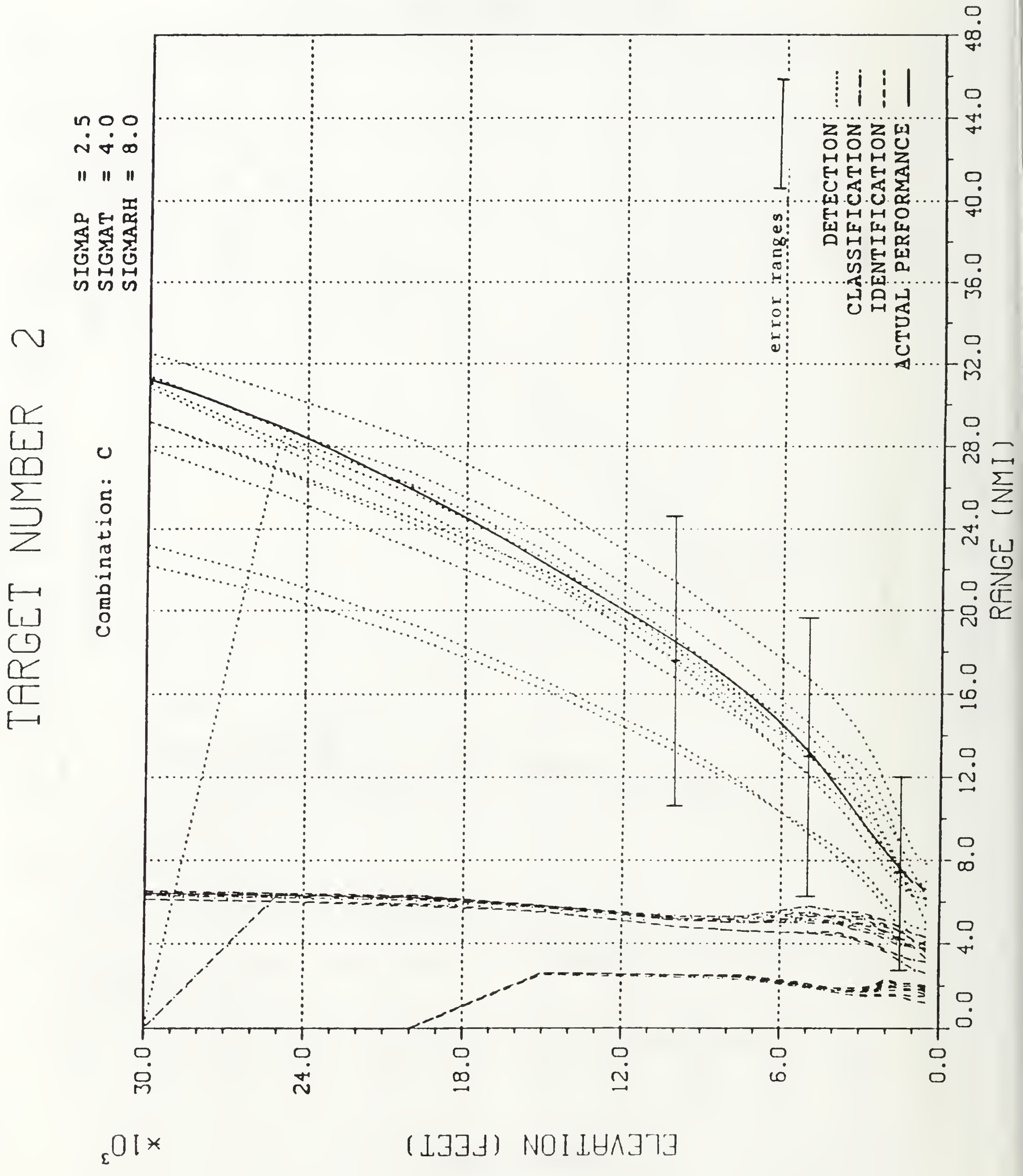

TARGET NUMBER 3
Combination: B
SIGMAP = 2.5
SIGMAT = 2.0
SIGMARH = 8.0
ELEVATION (FEET)
$\times 10^3$
30.0
24.0
18.0
12.0
6.0
0.0
RANGE (NMI)
0.0
4.0
8.0
12.0
16.0
20.0
24.0
28.0
32.0
36.0
40.0
44.0
48.0
error ranges
DETECTION
CLASSIFICATION
IDENTIFICATION
ACTUAL PERFORMANCE



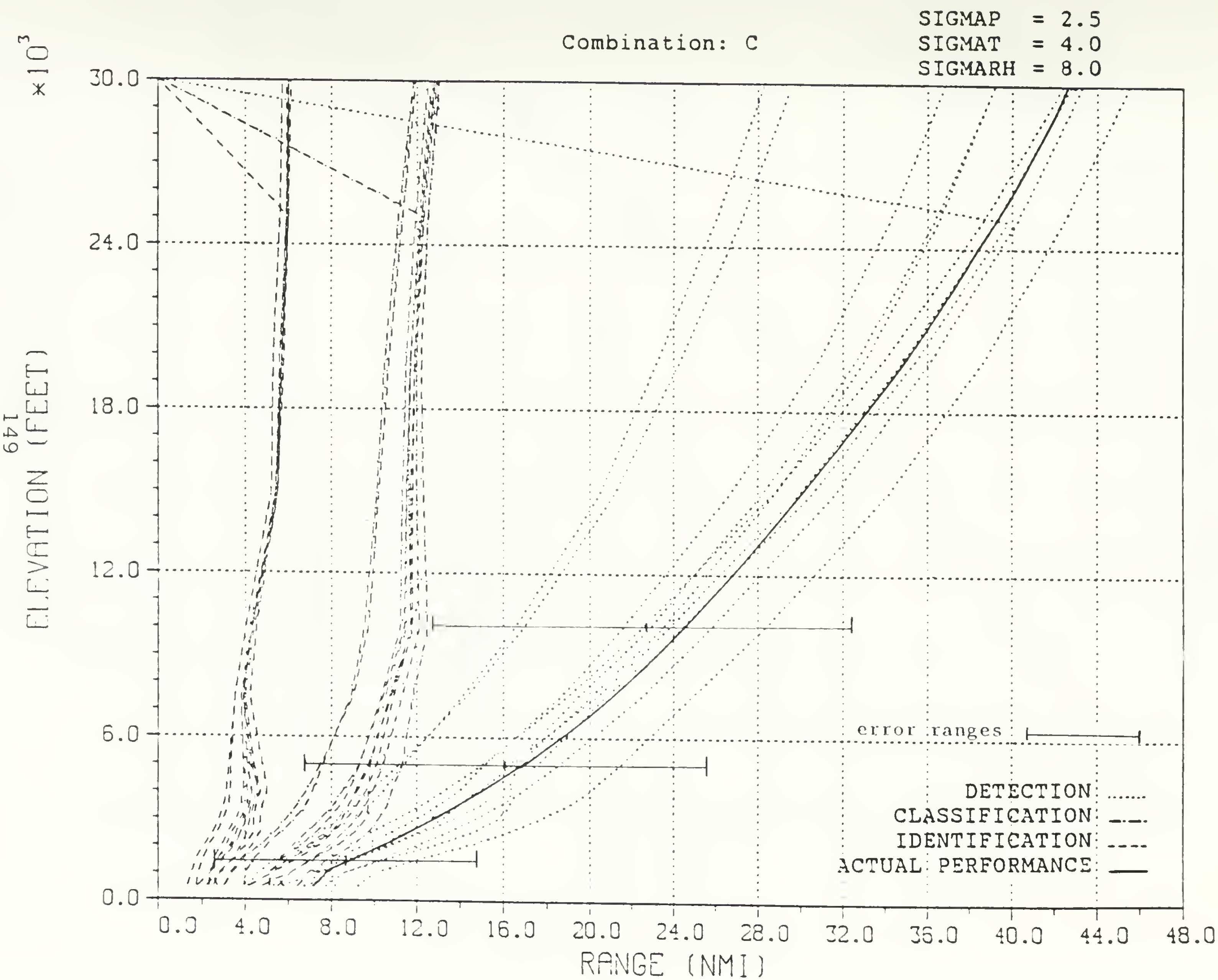
TARGET NUMBER 4
Combination: B
SIGMAP = 2.5
SIGMAT = 2.0
SIGMARH = 8.0
×10³
ELEVATION (FEET)
30.0
24.0
18.0
12.0
6.0
0.0
RANGE (NMI)
0.0
4.0
8.0
12.0
16.0
20.0
24.0
28.0
32.0
36.0
40.0
44.0
48.0
error ranges
DETECTION
CLASSIFICATION
IDENTIFICATION
ACTUAL PERFORMANCE

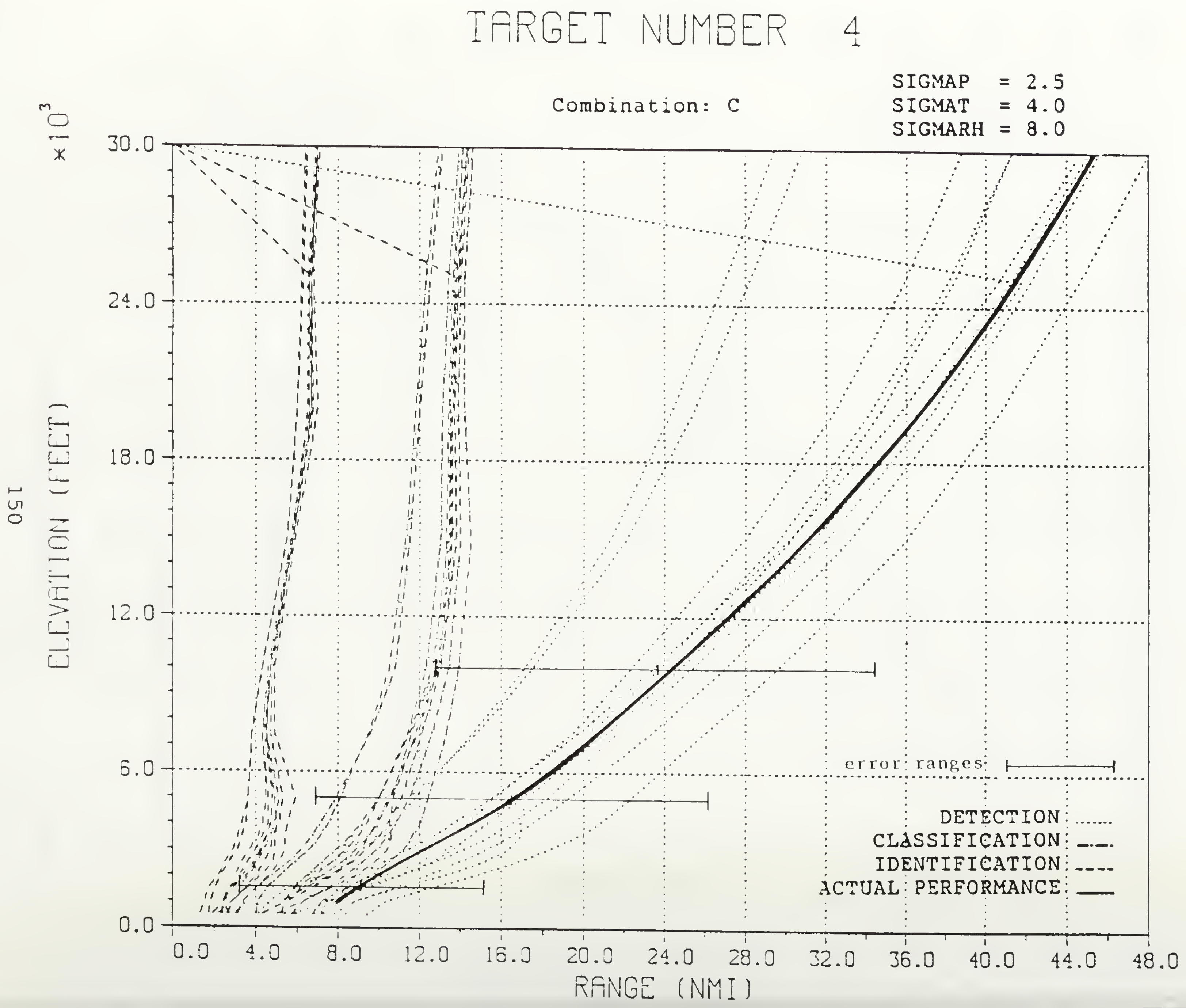


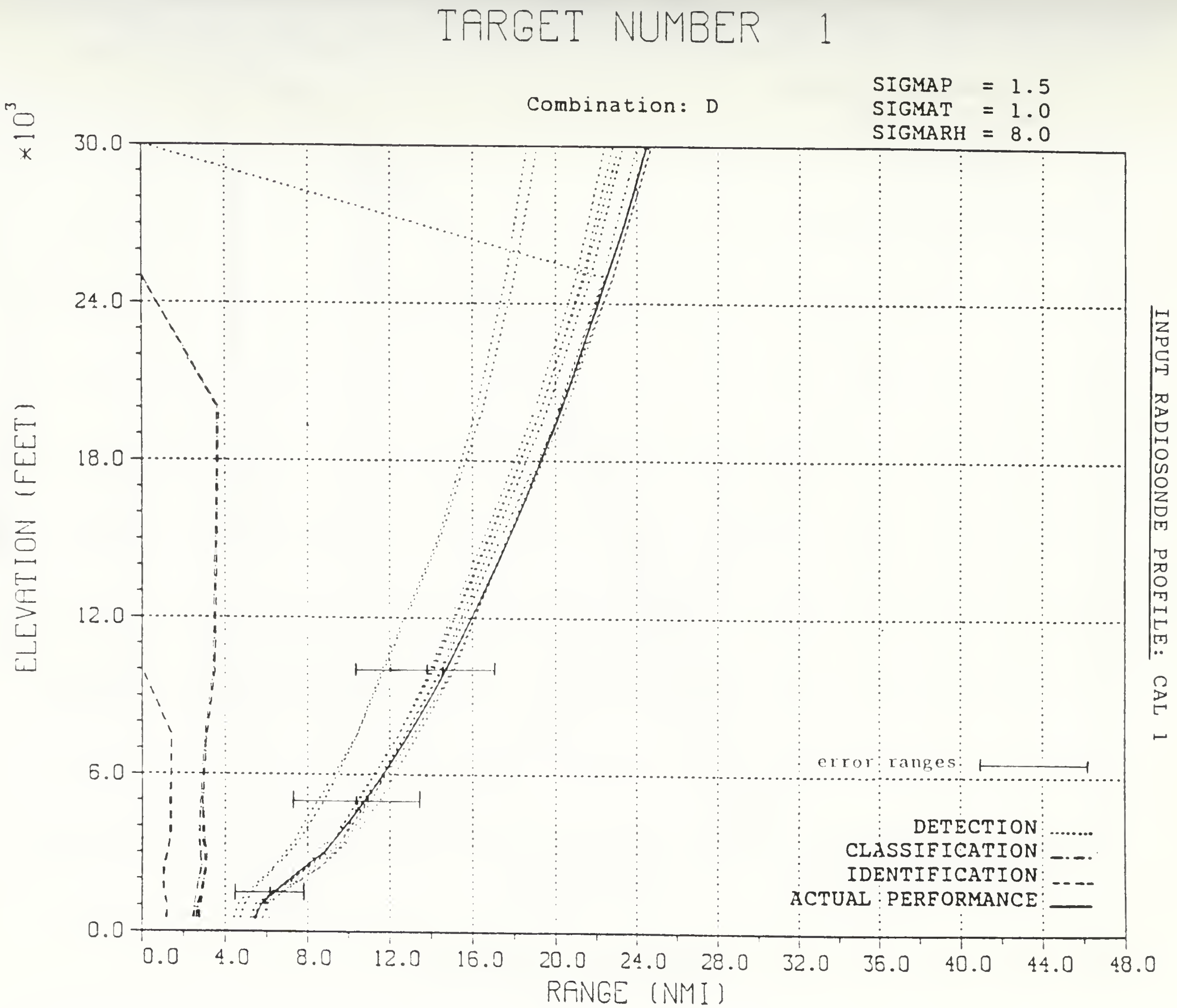
TARGET NUMBER 1
Combination: C
SIGMAP = 2.5
SIGMAT = 4.0
SIGMARH = 8.0
INPUT RADIOSONDE PROFILE: CAL 1
ELEVATION (FEET)
$\times 10^3$
0.0
6.0
12.0
18.0
24.0
30.0
RANGE (NMI)
0.0
4.0
8.0
12.0
16.0
20.0
24.0
28.0
32.0
36.0
40.0
44.0
48.0
error ranges
DETECTION
CLASSIFICATION
IDENTIFICATION
ACTUAL PERFORMANCE


TARGET NUMBER 2
Combination: C
SIGMAP = 2.5
SIGMAT = 4.0
SIGMARH = 8.0
error ranges
DETECTION
CLASSIFICATION
IDENTIFICATION
ACTUAL PERFORMANCE
RANGE (NMI)
0.0 4.0 8.0 12.0 16.0 20.0 24.0 28.0 32.0 36.0 40.0 44.0 48.0
ELEVATION (FEET)
x10³
0.0 6.0 12.0 18.0 24.0 30.0

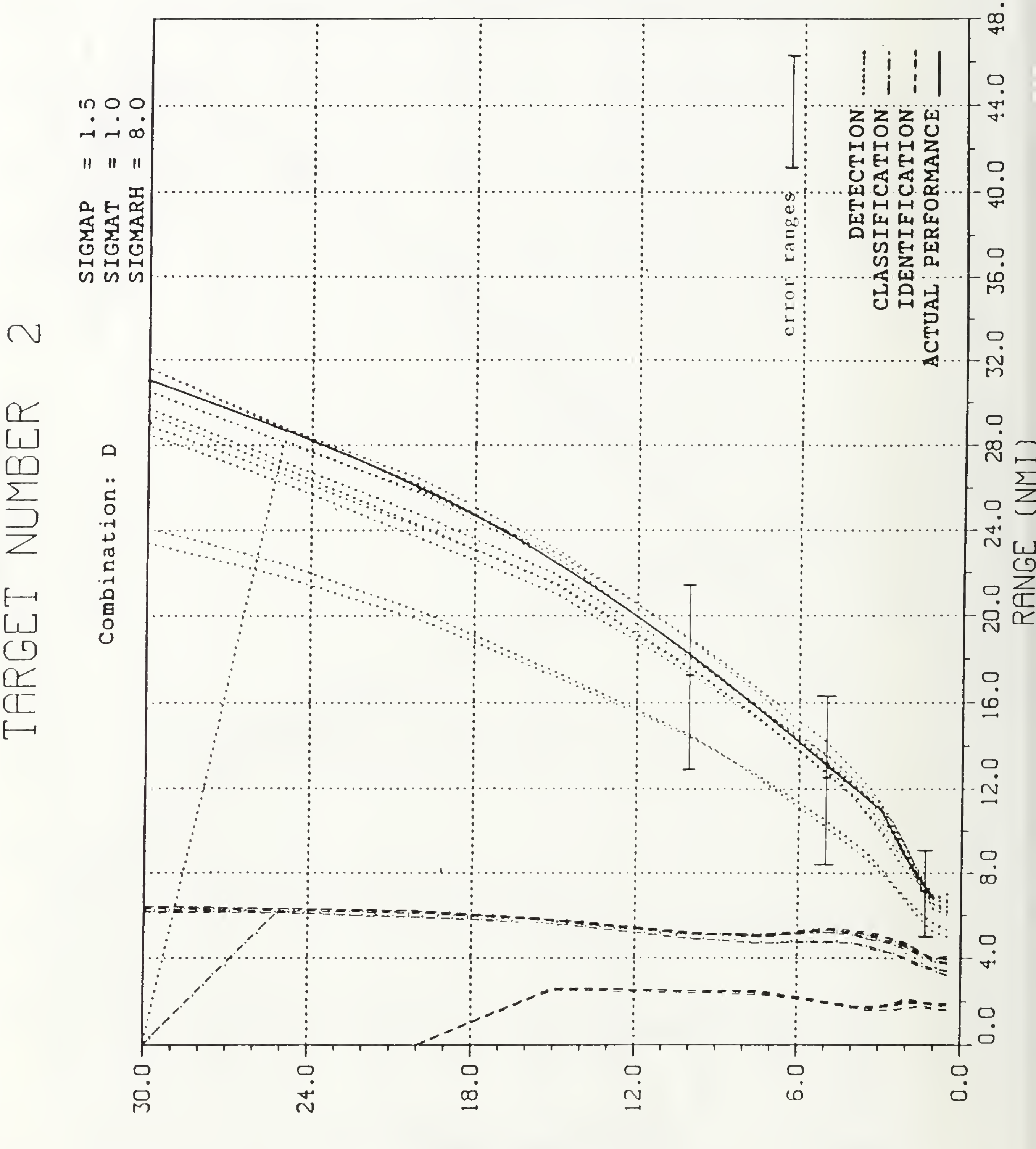
TARGET NUMBER 3

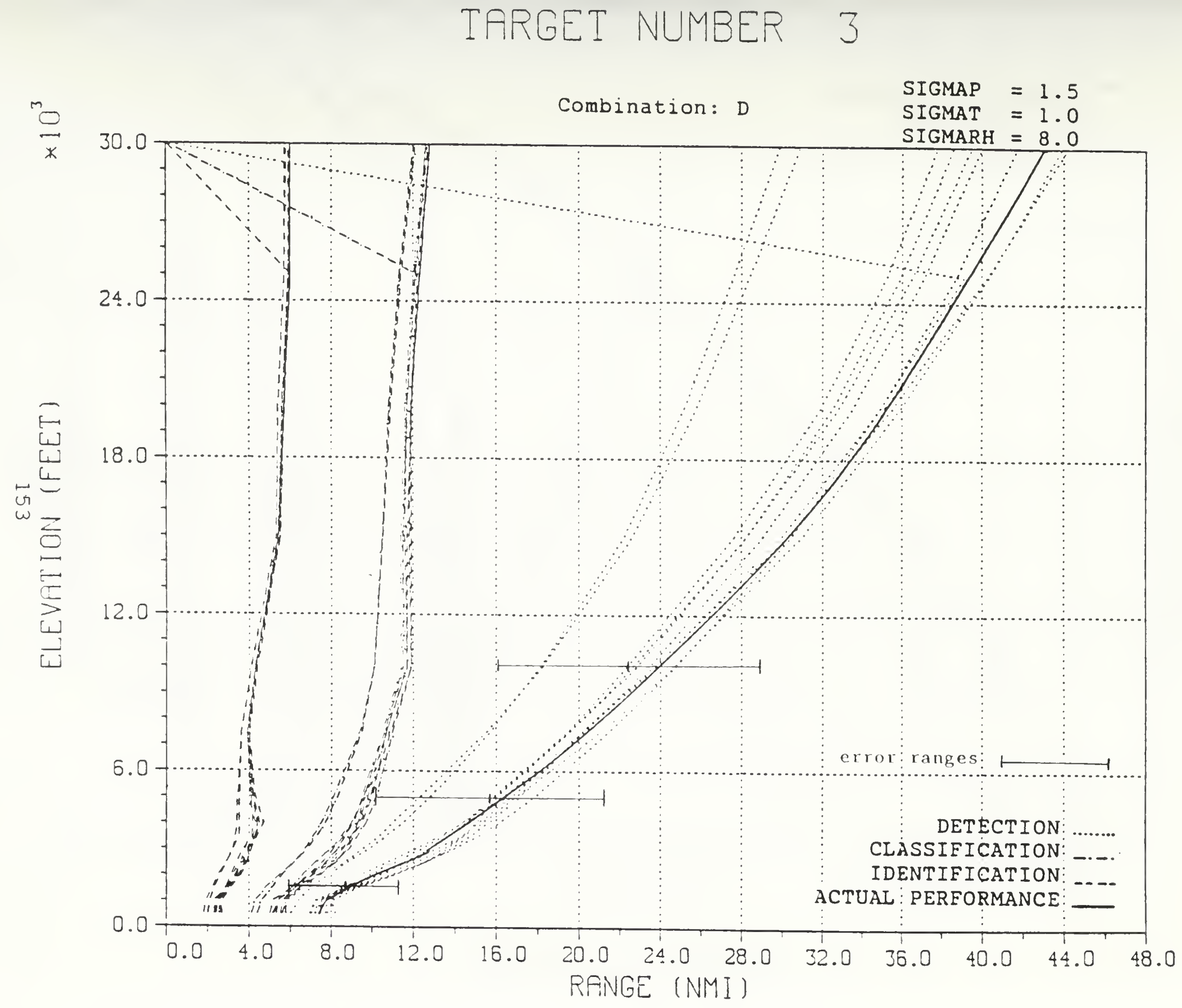



TARGET NUMBER 4
Combination: C
SIGMAP = 2.5
SIGMAT = 4.0
SIGMARH = 8.0
error ranges
DETECTION
CLASSIFICATION
IDENTIFICATION
ACTUAL PERFORMANCE
ELEVATION (FEET)
×10³
30.0
24.0
18.0
12.0
6.0
0.0
0.0
4.0
8.0
12.0
16.0
20.0
24.0
28.0
32.0
36.0
40.0
44.0
48.0
RANGE (NMI)

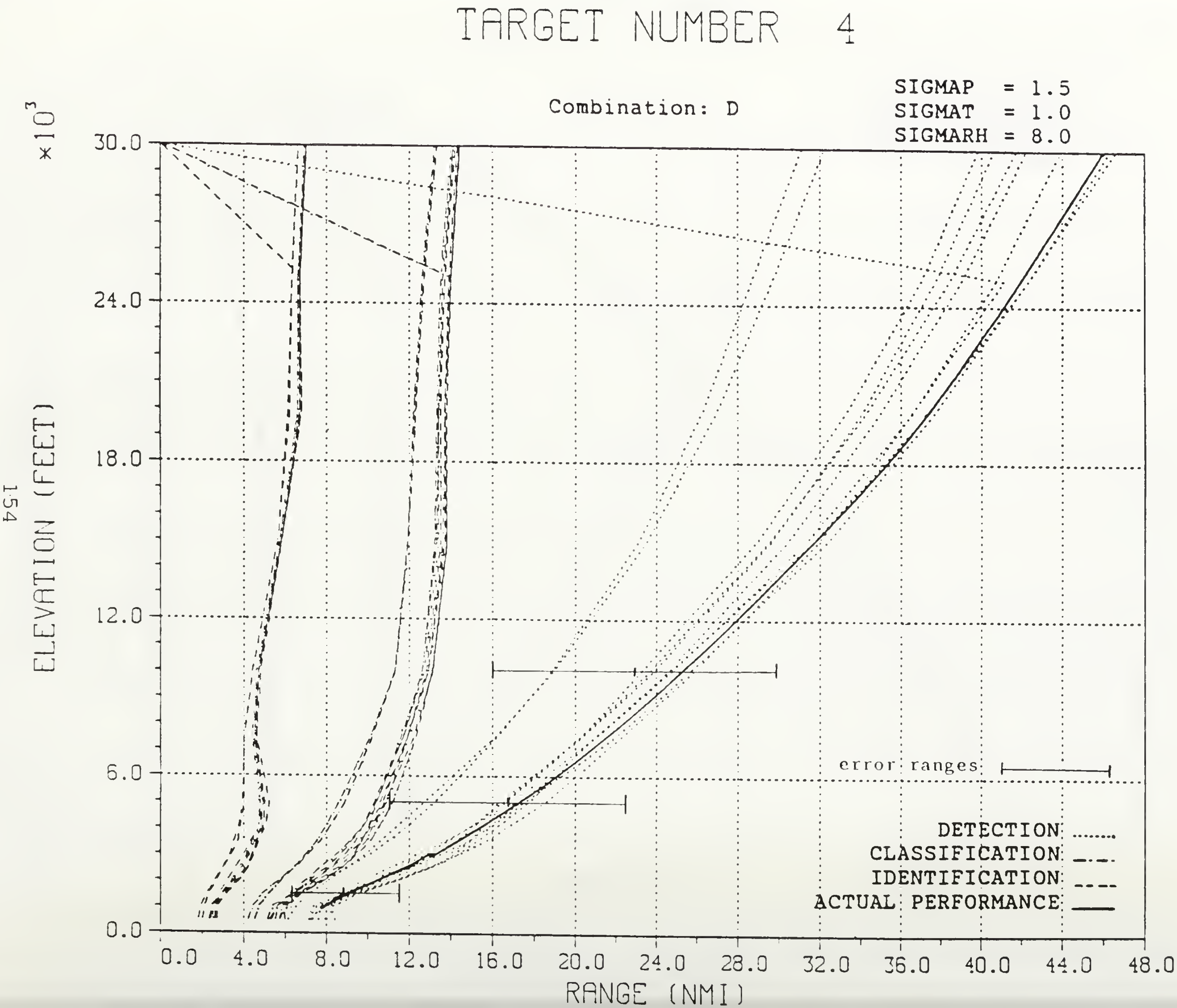


TARGET NUMBER 1
Combination: D
SIGMAP = 1.5
SIGMAT = 1.0
SIGMARH = 8.0
INPUT RADIOSONDE PROFILE: CAL 1
$\times 10^3$
ELEVATION (FEET)
30.0
24.0
18.0
12.0
6.0
0.0
RANGE (NMI)
0.0
4.0
8.0
12.0
16.0
20.0
24.0
28.0
32.0
36.0
40.0
44.0
48.0
error ranges
DETECTION
CLASSIFICATION
IDENTIFICATION
ACTUAL PERFORMANCE

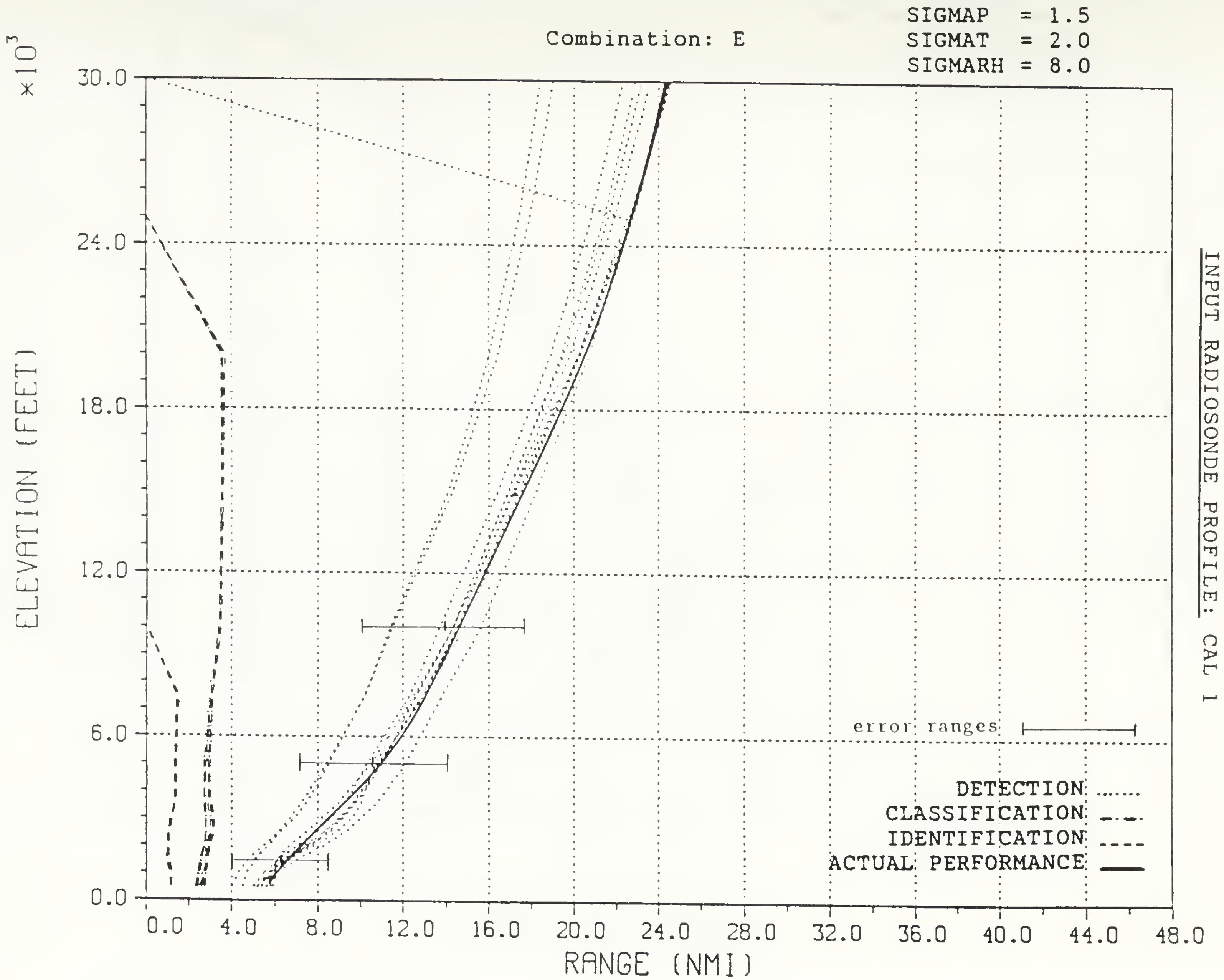

TARGET NUMBER 2
Combination: D
SIGMAP = 1.5
SIGMAT = 1.0
SIGMARH = 8.0
error ranges
DETECTION
CLASSIFICATION
IDENTIFICATION
ACTUAL PERFORMANCE
RANGE (NMI)
0.0
4.0
8.0
12.0
16.0
20.0
24.0
28.0
32.0
36.0
40.0
44.0
48.0
ELEVATION (FEET)
×10³
30.0
24.0
18.0
12.0
6.0
0.0

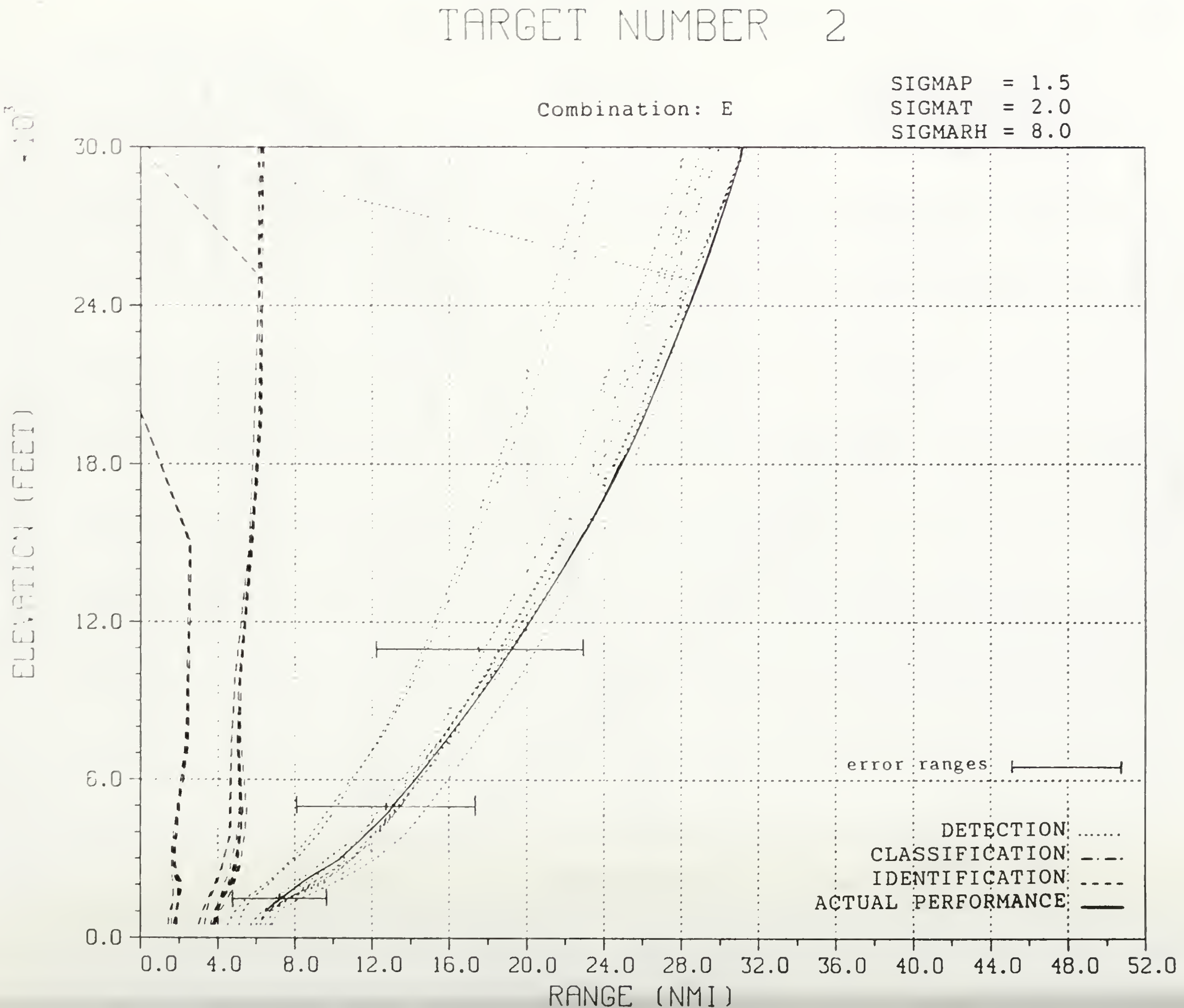


TARGET NUMBER 3
Combination: D
SIGMAP = 1.5
SIGMAT = 1.0
SIGMARH = 8.0
$\times 10^{3}$
ELEVATION (FEET)
30.0
24.0
18.0
12.0
6.0
0.0
0.0
4.0
8.0
12.0
16.0
20.0
24.0
28.0
32.0
36.0
40.0
44.0
48.0
RANGE (NMI)
error ranges
DETECTION
CLASSIFICATION
IDENTIFICATION
ACTUAL PERFORMANCE


TARGET NUMBER 4
Combination: D
SIGMAP = 1.5
SIGMAT = 1.0
SIGMARH = 8.0
$\times 10^3$
ELEVATION (FEET)
30.0
24.0
18.0
12.0
6.0
0.0
RANGE (NMI)
0.0
4.0
8.0
12.0
16.0
20.0
24.0
28.0
32.0
36.0
40.0
44.0
48.0
error ranges
DETECTION
CLASSIFICATION
IDENTIFICATION
ACTUAL PERFORMANCE

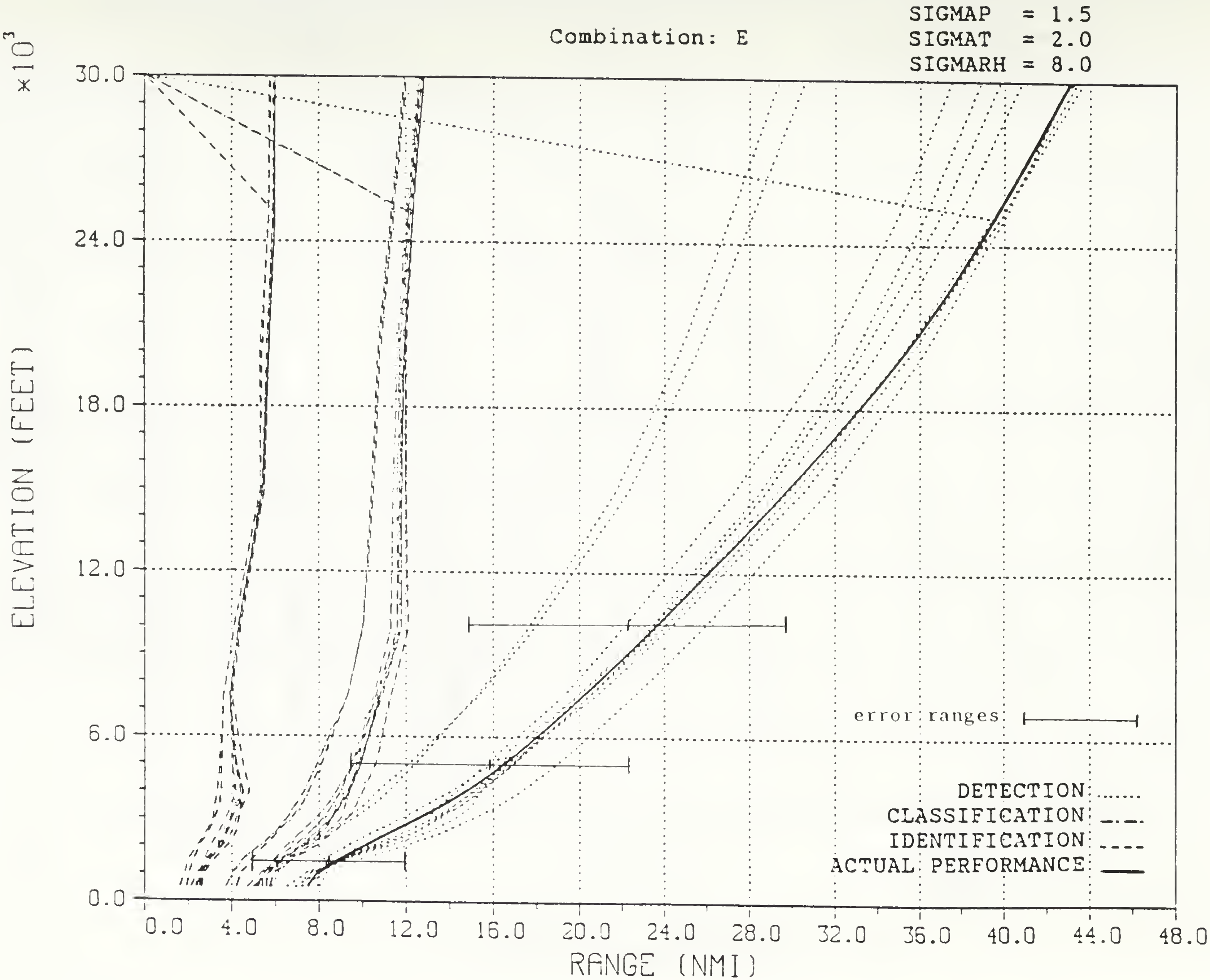
TARGET NUMBER 1

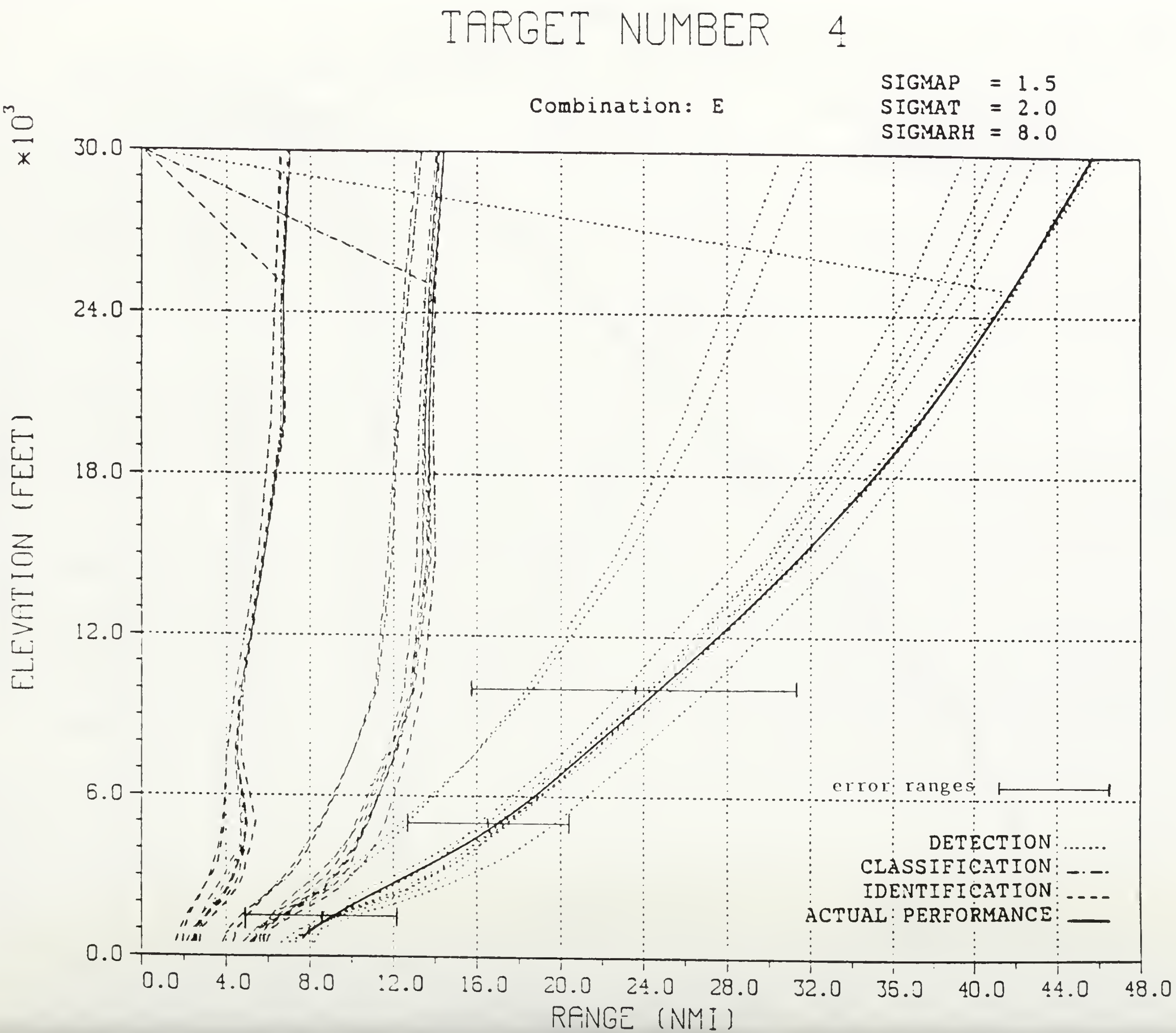




TARGET NUMBER 2
Combination: E
SIGMAP = 1.5
SIGMAT = 2.0
SIGMARH = 8.0
ELEVATION (FEET)
$\times 10^3$
30.0
24.0
18.0
12.0
6.0
0.0
0.0
4.0
8.0
12.0
16.0
20.0
24.0
28.0
32.0
36.0
40.0
44.0
48.0
52.0
RANGE (NMI)
error ranges
DETECTION
CLASSIFICATION
IDENTIFICATION
ACTUAL PERFORMANCE

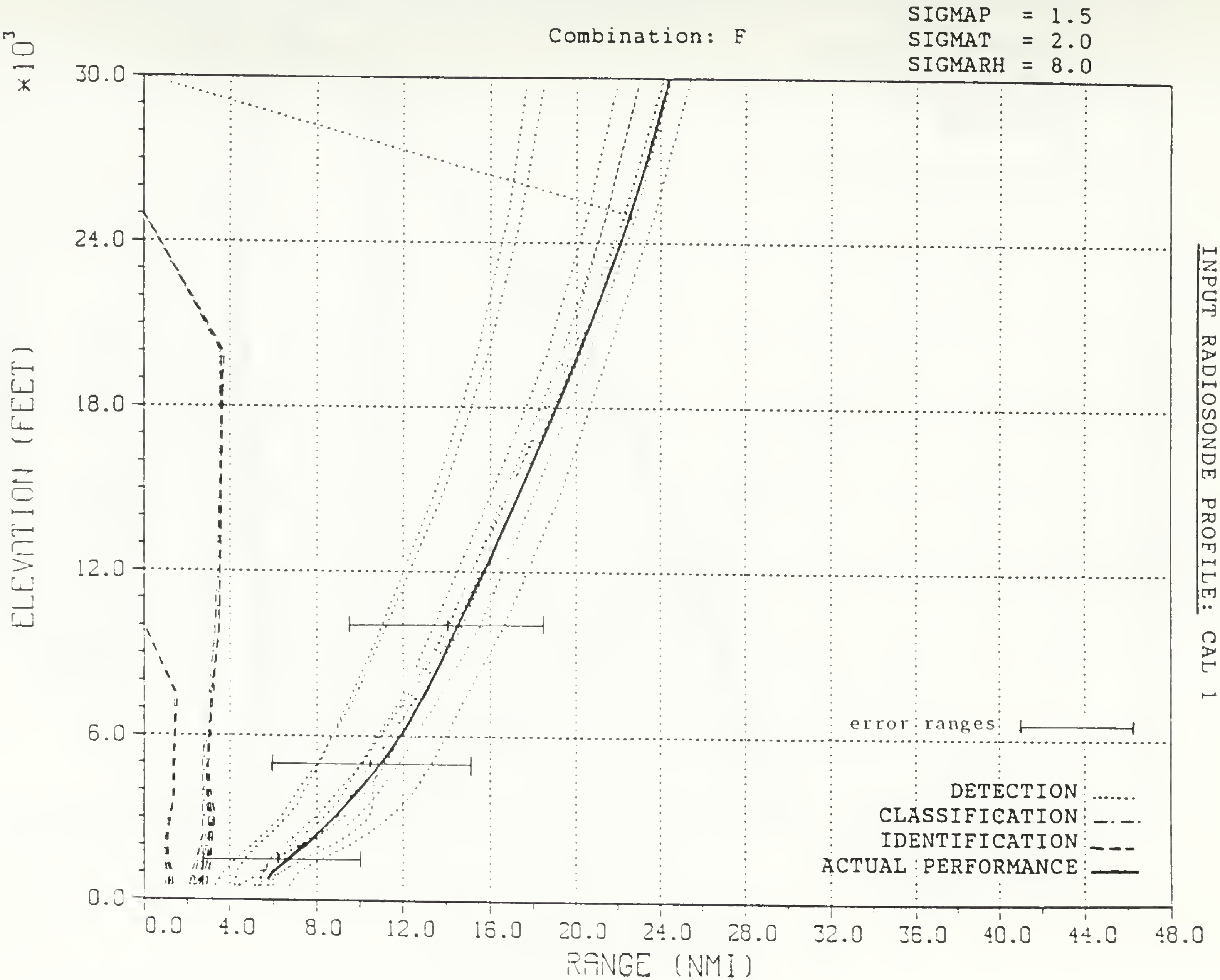
TARGET NUMBER 3

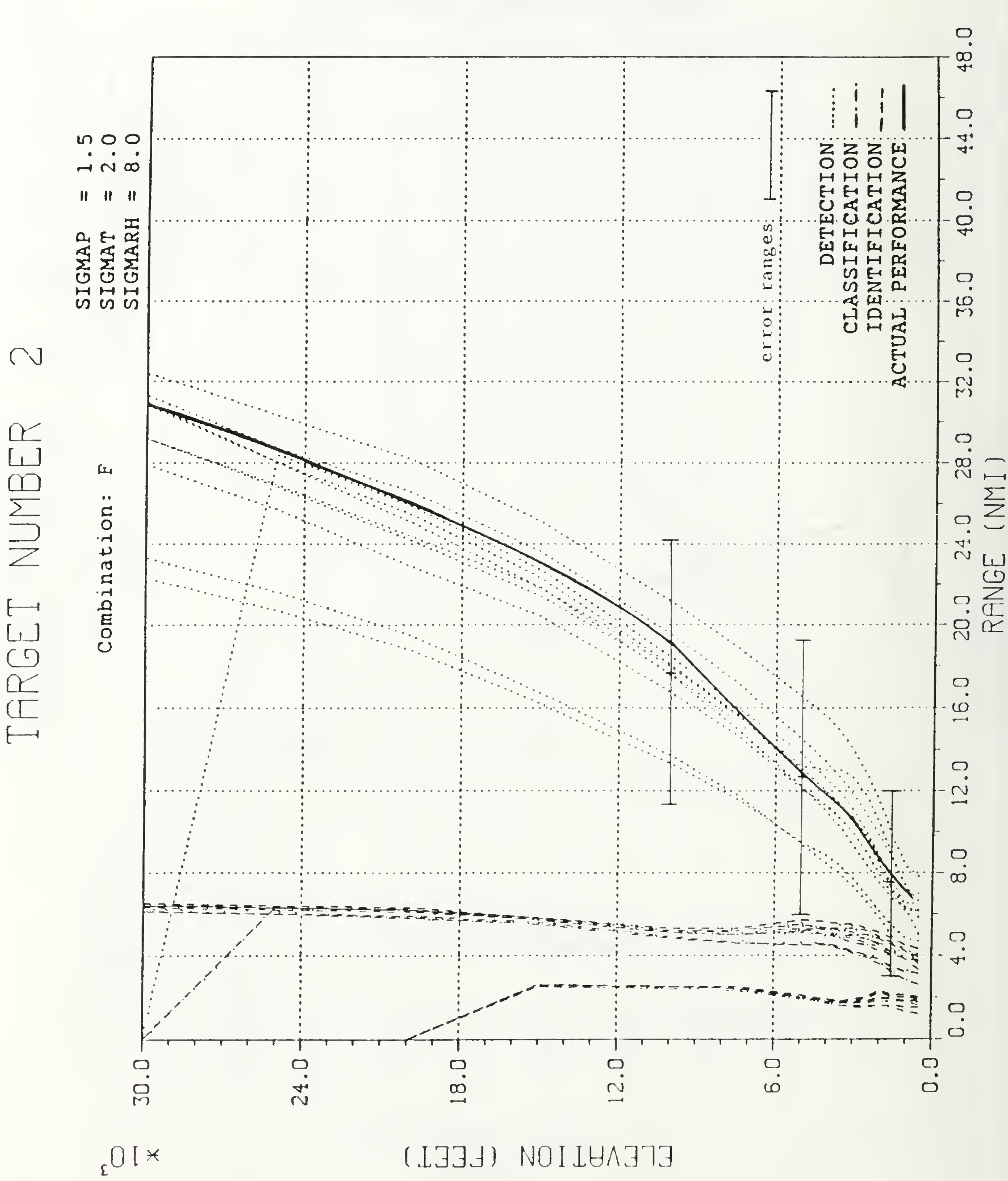




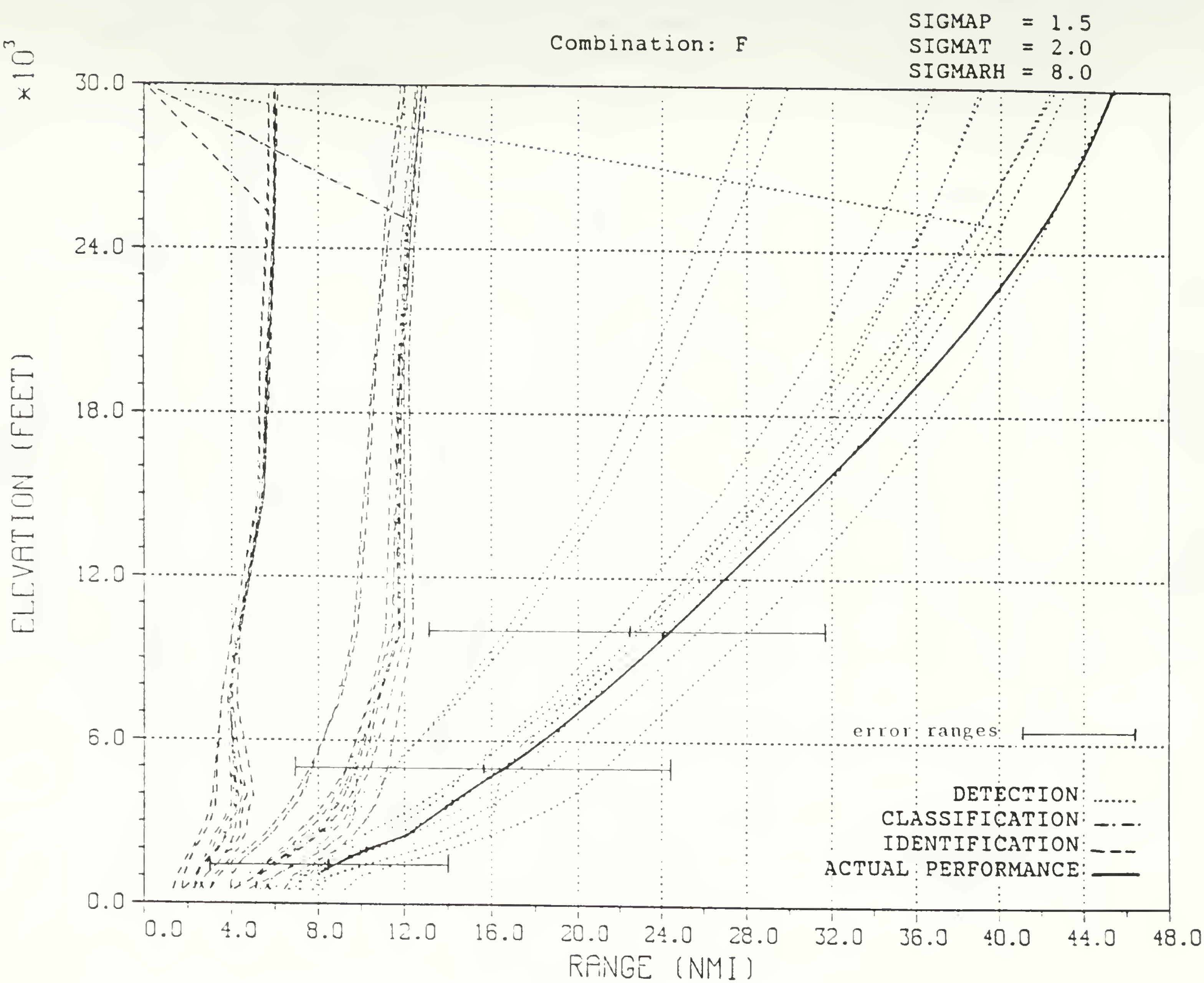
TARGET NUMBER 4
Combination: E
SIGMAP = 1.5
SIGMAT = 2.0
SIGMARH = 8.0
ELEVATION (FEET)
$\times 10^3$
30.0
24.0
18.0
12.0
6.0
0.0
RANGE (NMI)
0.0
4.0
8.0
12.0
16.0
20.0
24.0
28.0
32.0
36.0
40.0
44.0
48.0
error ranges
DETECTION
CLASSIFICATION
IDENTIFICATION
ACTUAL PERFORMANCE

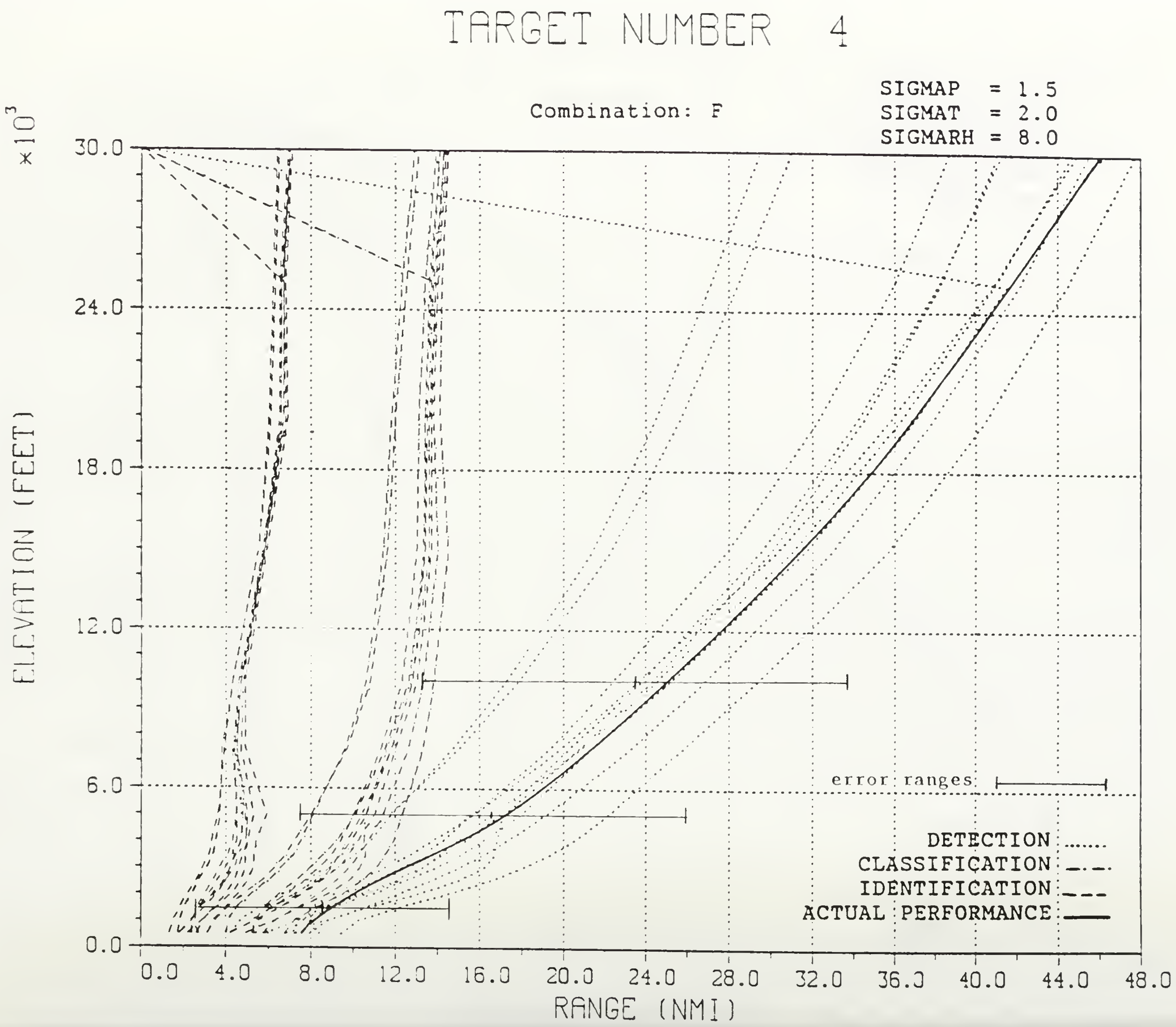
TARGET NUMBER 1

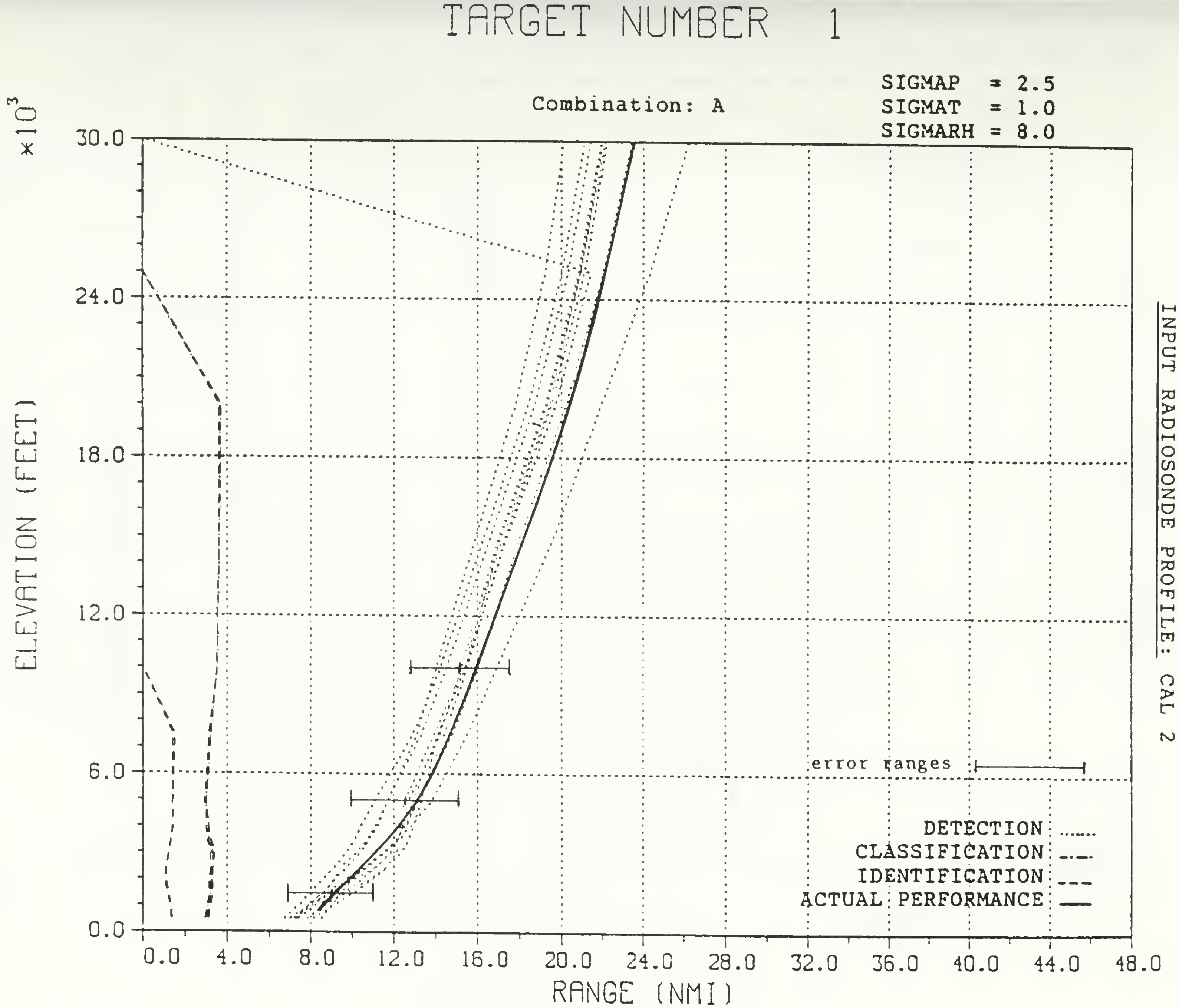


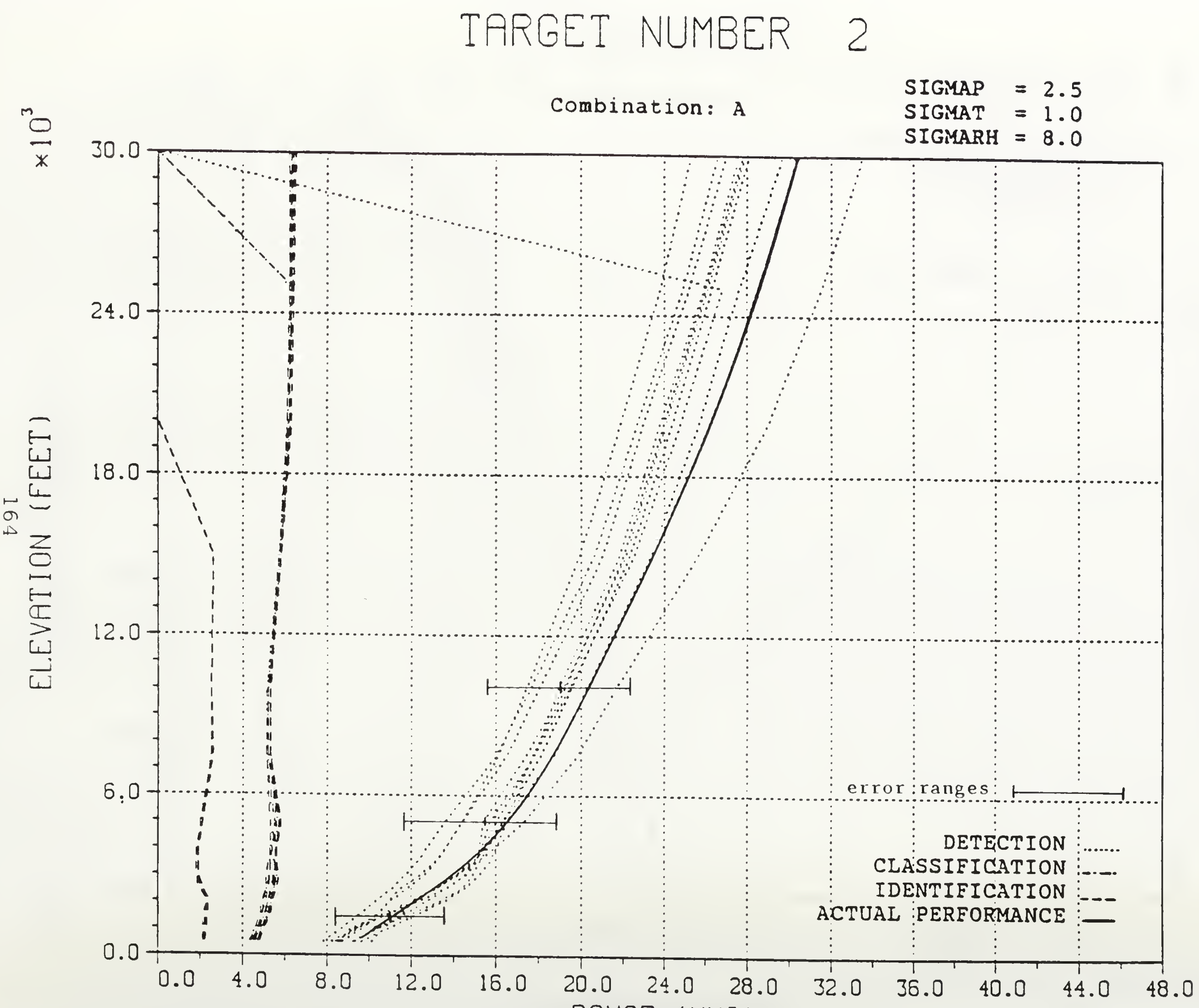

TARGET NUMBER 2
Combination: F
SIGMAP = 1.5
SIGMAT = 2.0
SIGMARH = 8.0
error ranges
DETECTION
CLASSIFICATION
IDENTIFICATION
ACTUAL PERFORMANCE
ELEVATION (FEET) x10^3
RANGE (NMI)
0.0
4.0
8.0
12.0
16.0
20.0
24.0
28.0
32.0
36.0
40.0
44.0
48.0
0.0
6.0
12.0
18.0
24.0
30.0

TARGET NUMBER 3

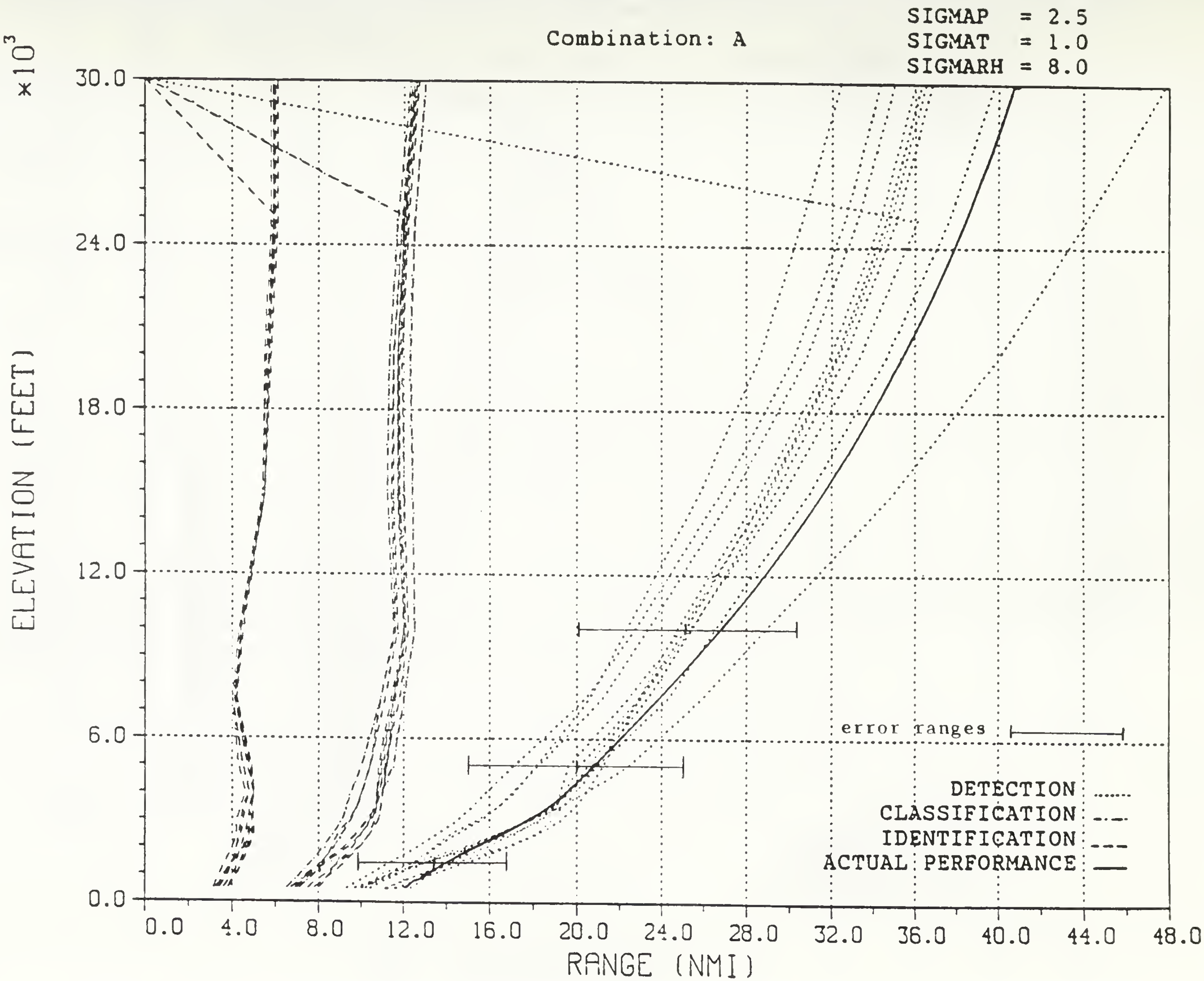


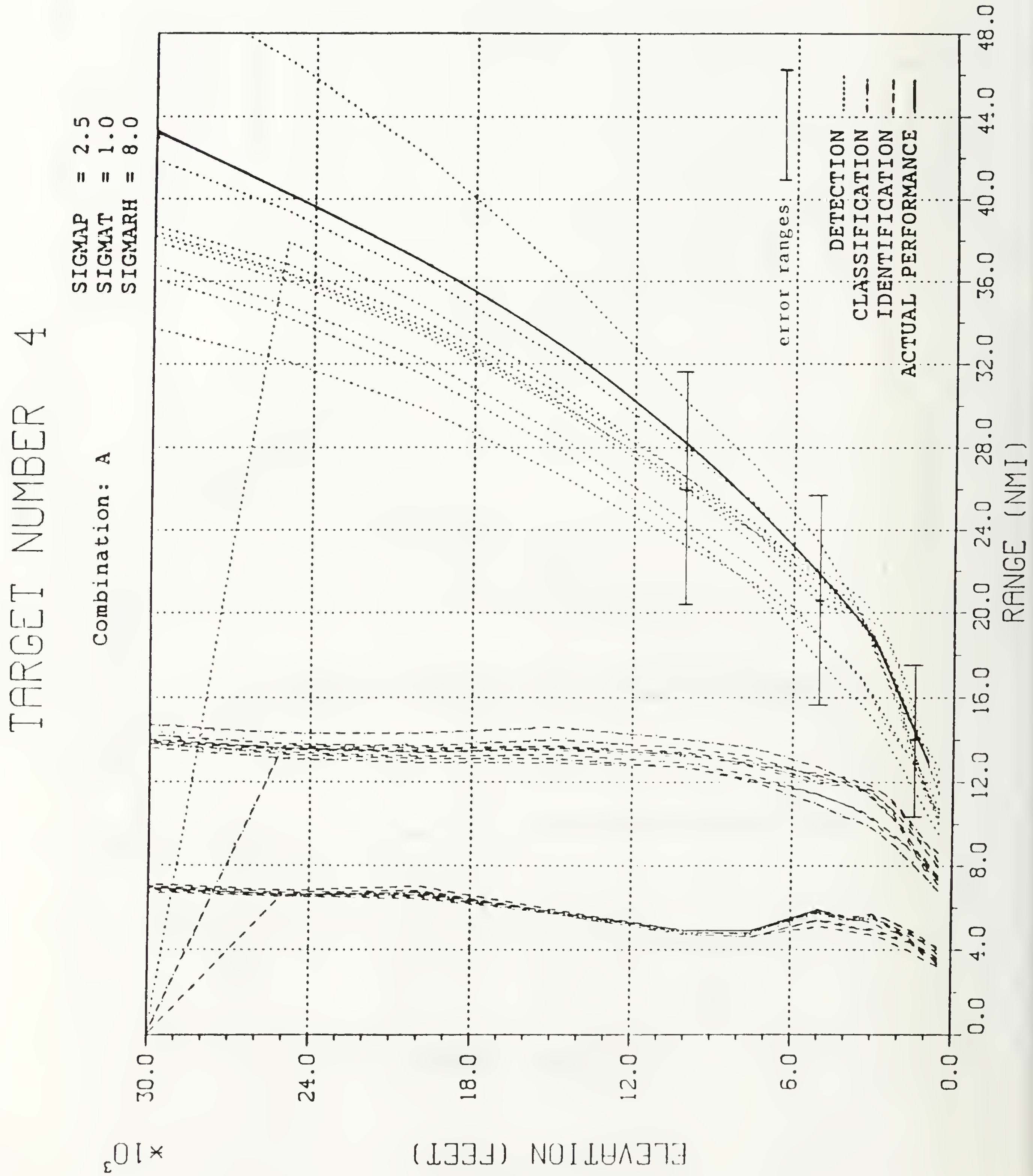

TARGET NUMBER 4
Combination: F
SIGMAP = 1.5
SIGMAT = 2.0
SIGMARH = 8.0
x10^3
30.0
24.0
18.0
12.0
6.0
0.0
ELEVATION (FEET)
0.0
4.0
8.0
12.0
16.0
20.0
24.0
28.0
32.0
36.0
40.0
44.0
48.0
RANGE (NMI)
error ranges
DETECTION
CLASSIFICATION
IDENTIFICATION
ACTUAL PERFORMANCE

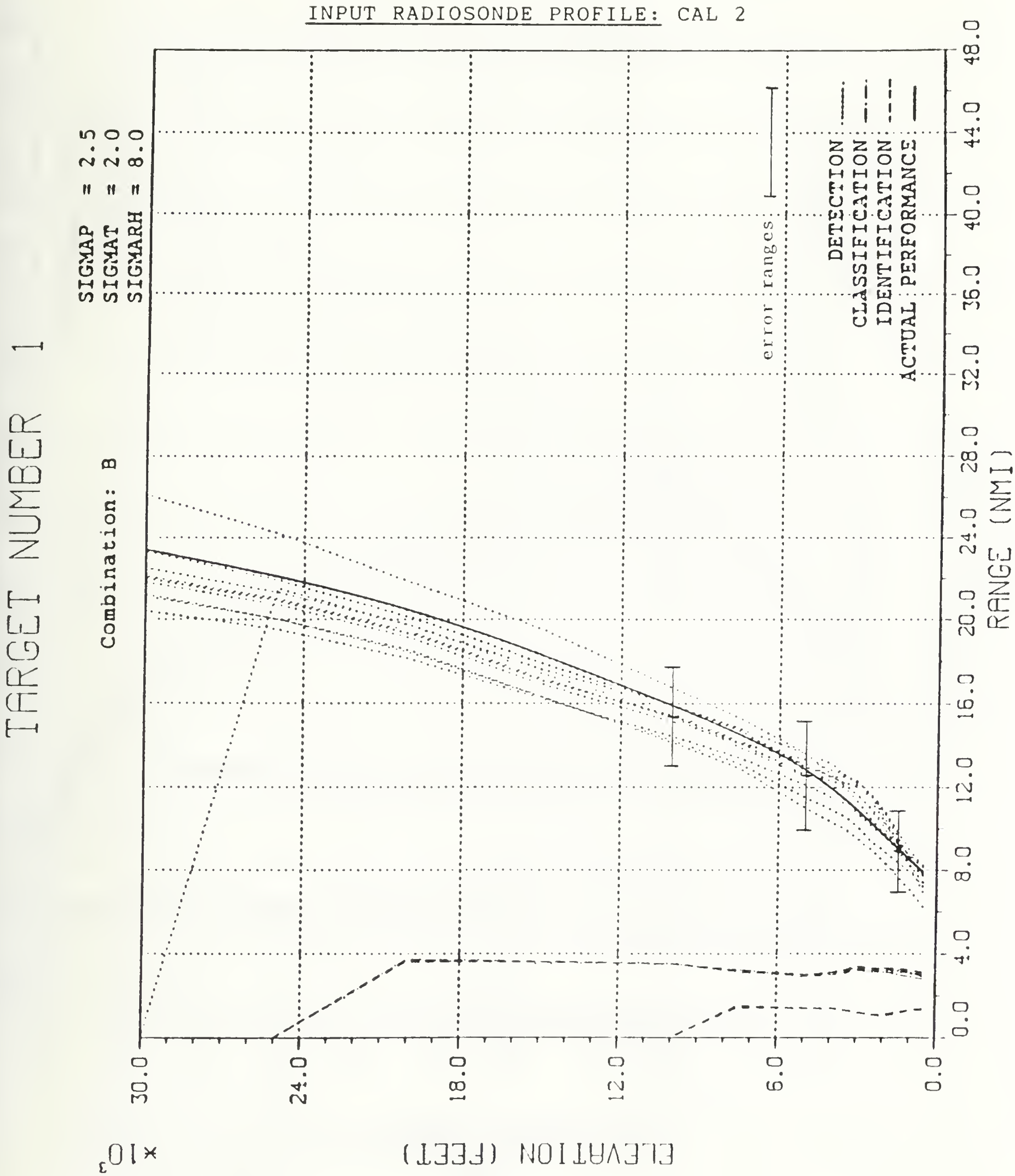

TARGET NUMBER 1
Combination: A
SIGMAP = 2.5
SIGMAT = 1.0
SIGMARH = 8.0
INPUT RADIOSONDE PROFILE: CAL 2
×10^3
ELEVATION (FEET)
30.0
24.0
18.0
12.0
6.0
0.0
RANGE (NMI)
0.0
4.0
8.0
12.0
16.0
20.0
24.0
28.0
32.0
36.0
40.0
44.0
48.0
error ranges
DETECTION
CLASSIFICATION
IDENTIFICATION
ACTUAL PERFORMANCE


TARGET NUMBER 2
Combination: A
SIGMAP = 2.5
SIGMAT = 1.0
SIGMARH = 8.0
ELEVATION (FEET)
×10^3
RANGE (NMI)
error ranges
DETECTION
CLASSIFICATION
IDENTIFICATION
ACTUAL PERFORMANCE
0.0
6.0
12.0
18.0
24.0
30.0
4.0
8.0
12.0
16.0
20.0
24.0
28.0
32.0
36.0
40.0
44.0
48.0

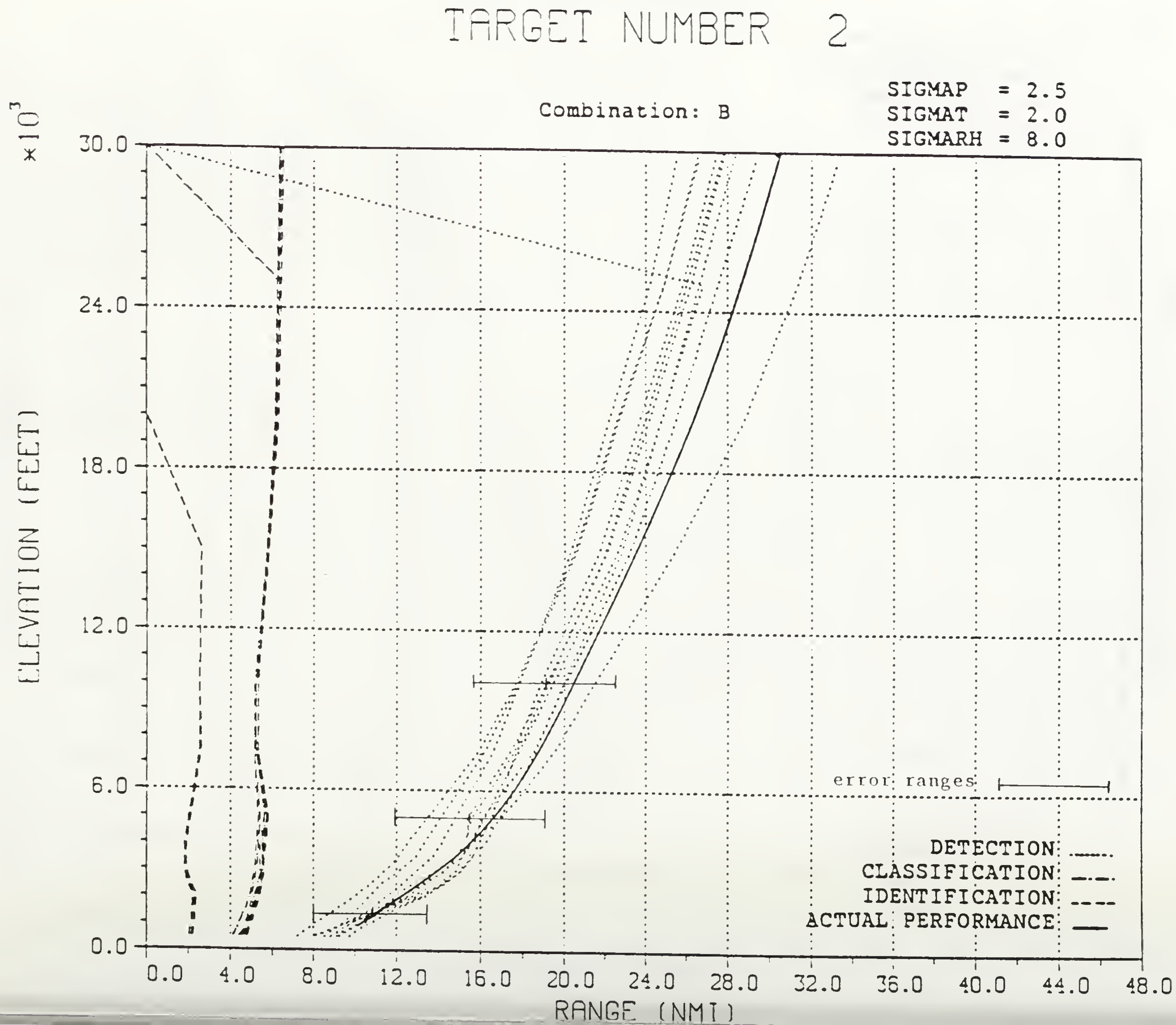
TARGET NUMBER 3



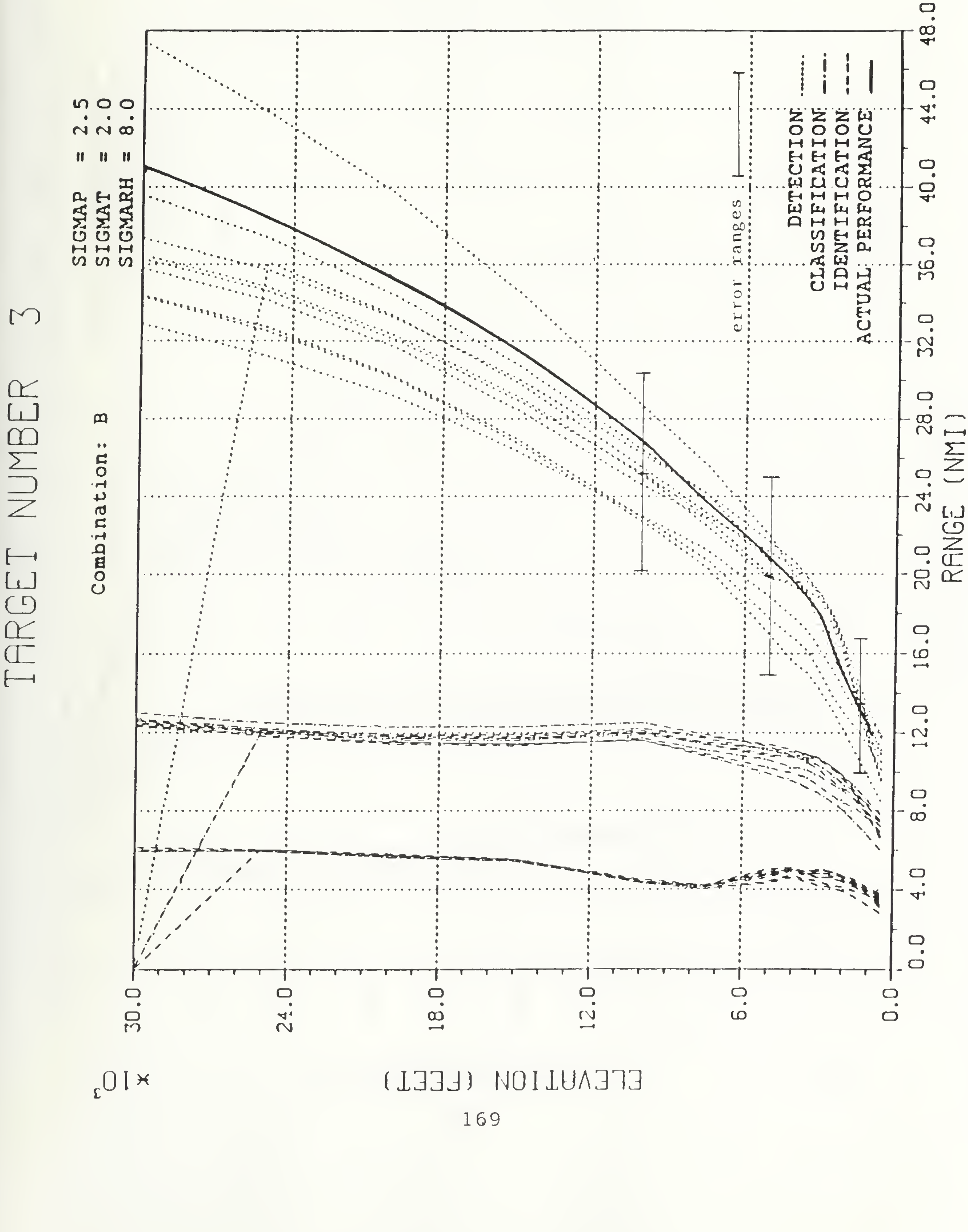

TARGET NUMBER 4
Combination: A
SIGMAP = 2.5
SIGMAT = 1.0
SIGMARH = 8.0
error ranges
DETECTION
CLASSIFICATION
IDENTIFICATION
ACTUAL PERFORMANCE
RANGE (NMI)
ELEVATION (FEET)
x10³
0.0
4.0
8.0
12.0
16.0
20.0
24.0
28.0
32.0
36.0
40.0
44.0
48.0
0.0
6.0
12.0
18.0
24.0
30.0



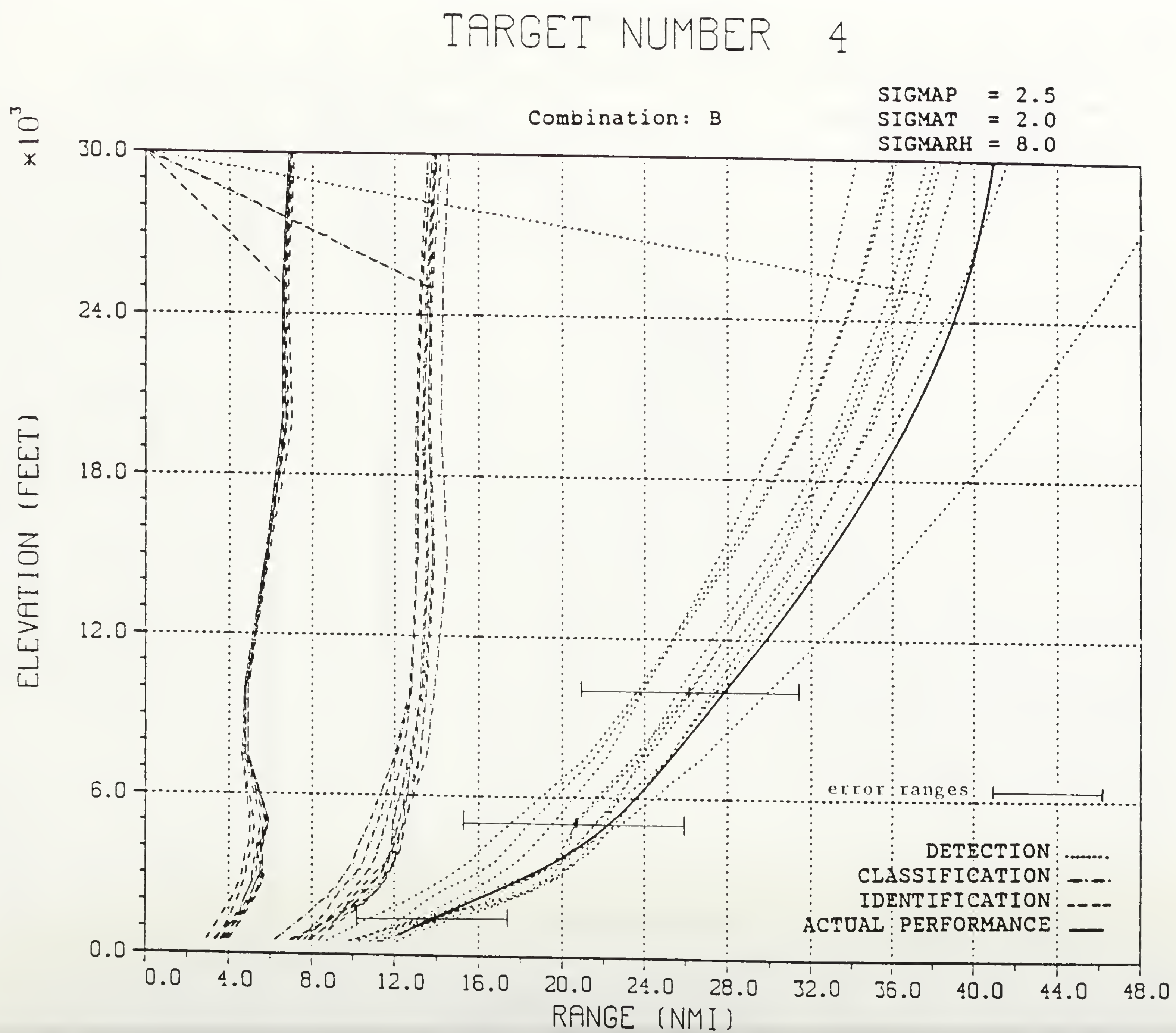
TARGET NUMBER 1
INPUT RADIOSONDE PROFILE: CAL 2
Combination: B
SIGMAP = 2.5
SIGMAT = 2.0
SIGMARH = 8.0
error ranges
DETECTION
CLASSIFICATION
IDENTIFICATION
ACTUAL PERFORMANCE
RANGE (NMI)
0.0
4.0
8.0
12.0
16.0
20.0
24.0
28.0
32.0
36.0
40.0
44.0
48.0
ELEVATION (FEET)
$\times 10^3$
0.0
6.0
12.0
18.0
24.0
30.0



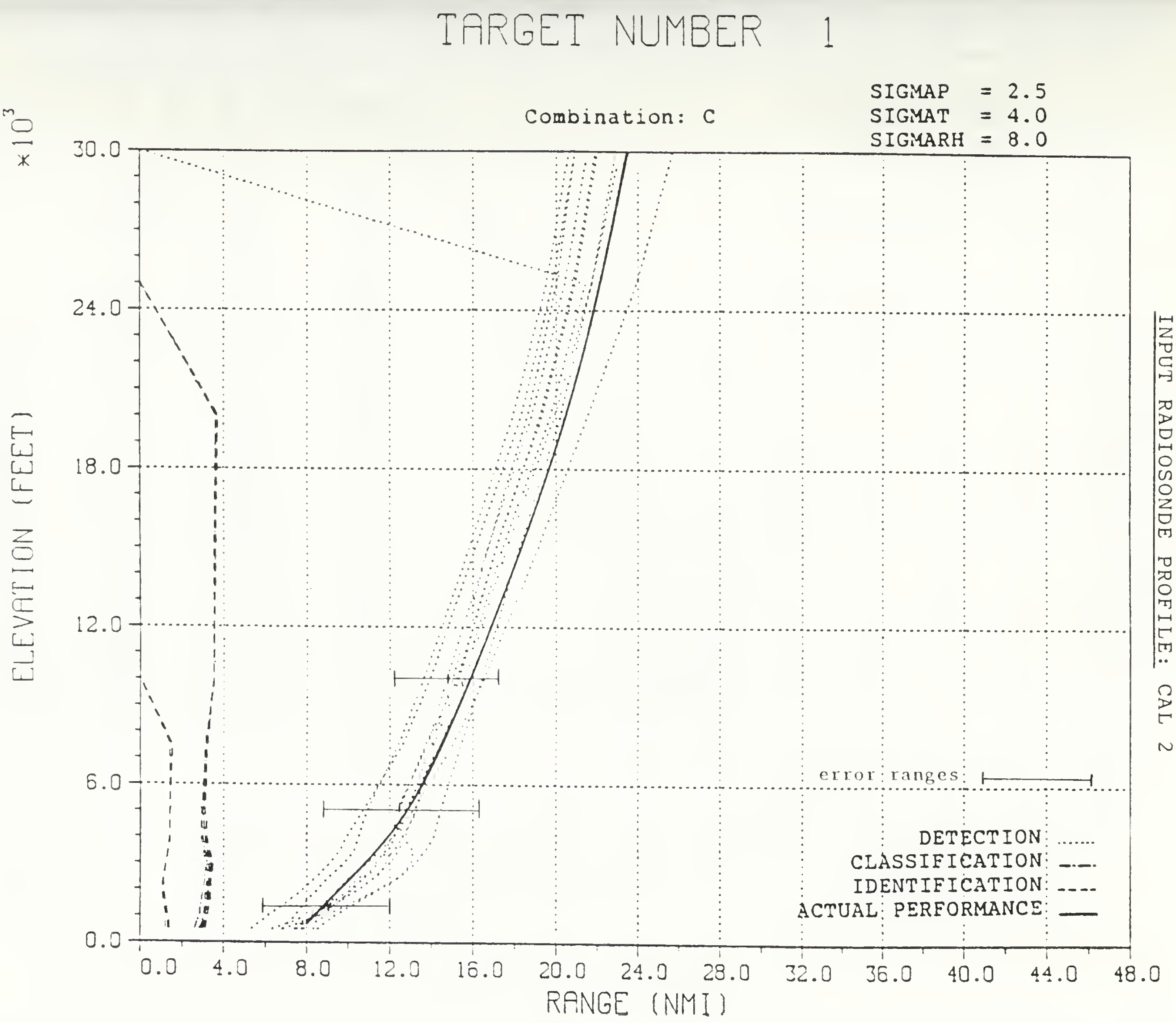
TARGET NUMBER 2
Combination: B
SIGMAP = 2.5
SIGMAT = 2.0
SIGMARH = 8.0
ELEVATION (FEET)
$\times 10^3$
30.0
24.0
18.0
12.0
6.0
0.0
RANGE (NMI)
0.0
4.0
8.0
12.0
16.0
20.0
24.0
28.0
32.0
36.0
40.0
44.0
48.0
error ranges
DETECTION
CLASSIFICATION
IDENTIFICATION
ACTUAL PERFORMANCE

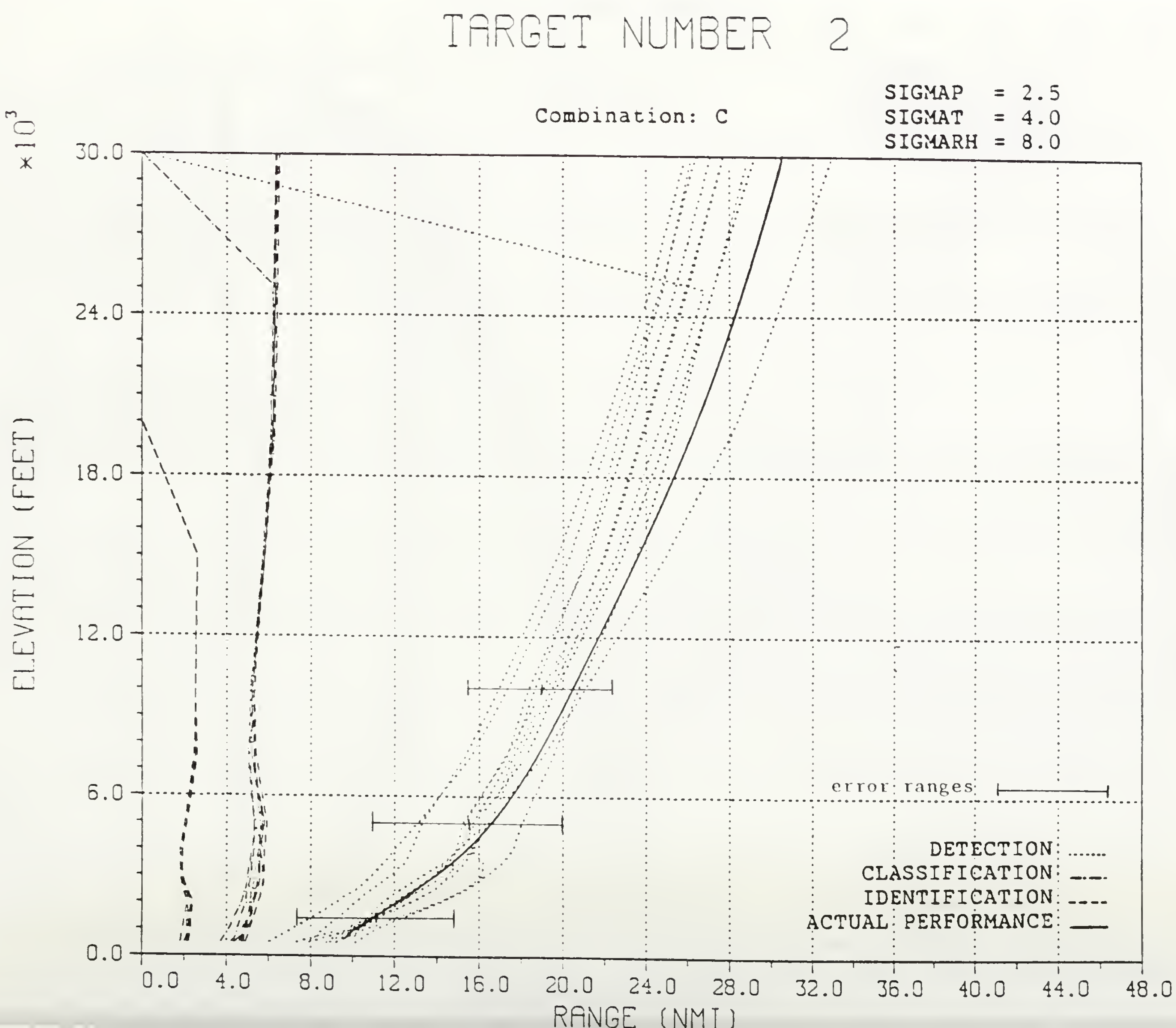


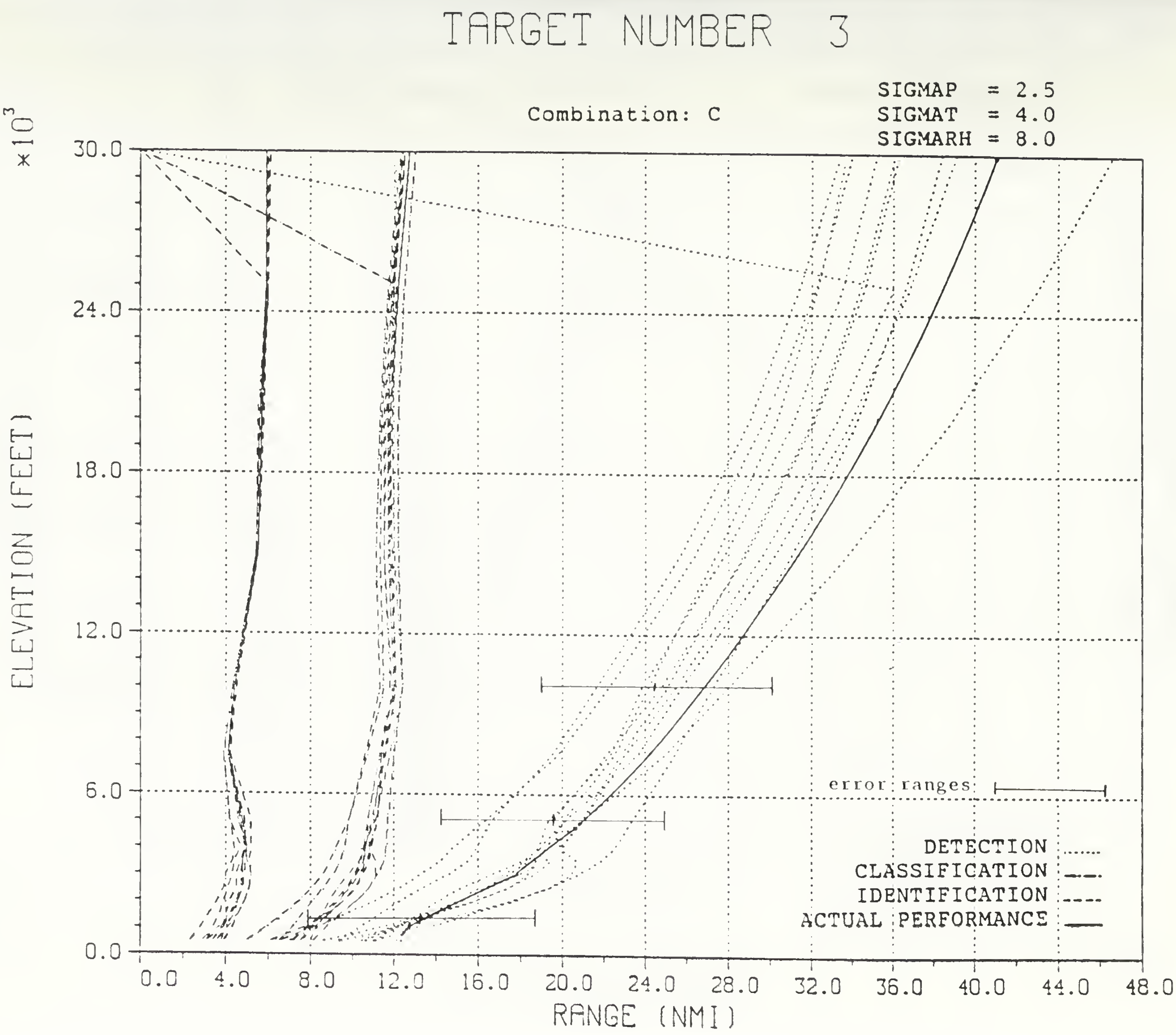
TARGET NUMBER 3
Combination: B
SIGMAP = 2.5
SIGMAT = 2.0
SIGMARH = 8.0
error ranges
DETECTION
CLASSIFICATION
IDENTIFICATION
ACTUAL PERFORMANCE
RANGE (NMI)
0.0
4.0
8.0
12.0
16.0
20.0
24.0
28.0
32.0
36.0
40.0
44.0
48.0
ELEVATION (FEET)
x10³
0.0
6.0
12.0
18.0
24.0
30.0

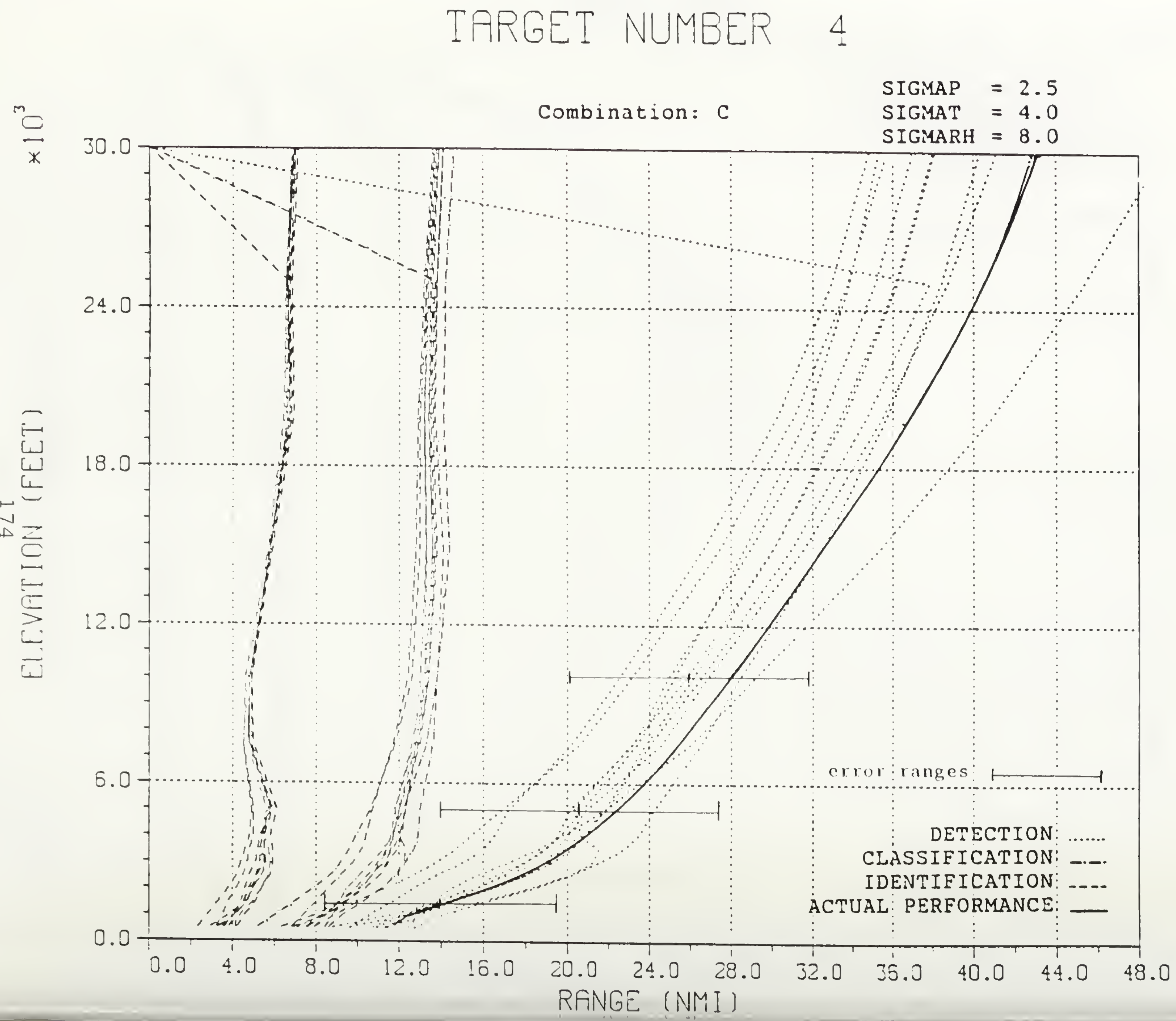


TARGET NUMBER 4
Combination: B
SIGMAP = 2.5
SIGMAT = 2.0
SIGMARH = 8.0
$\times 10^3$
30.0
24.0
18.0
12.0
6.0
0.0
ELEVATION (FEET)
0.0
4.0
8.0
12.0
16.0
20.0
24.0
28.0
32.0
36.0
40.0
44.0
48.0
RANGE (NMI)
error ranges
DETECTION
CLASSIFICATION
IDENTIFICATION
ACTUAL PERFORMANCE

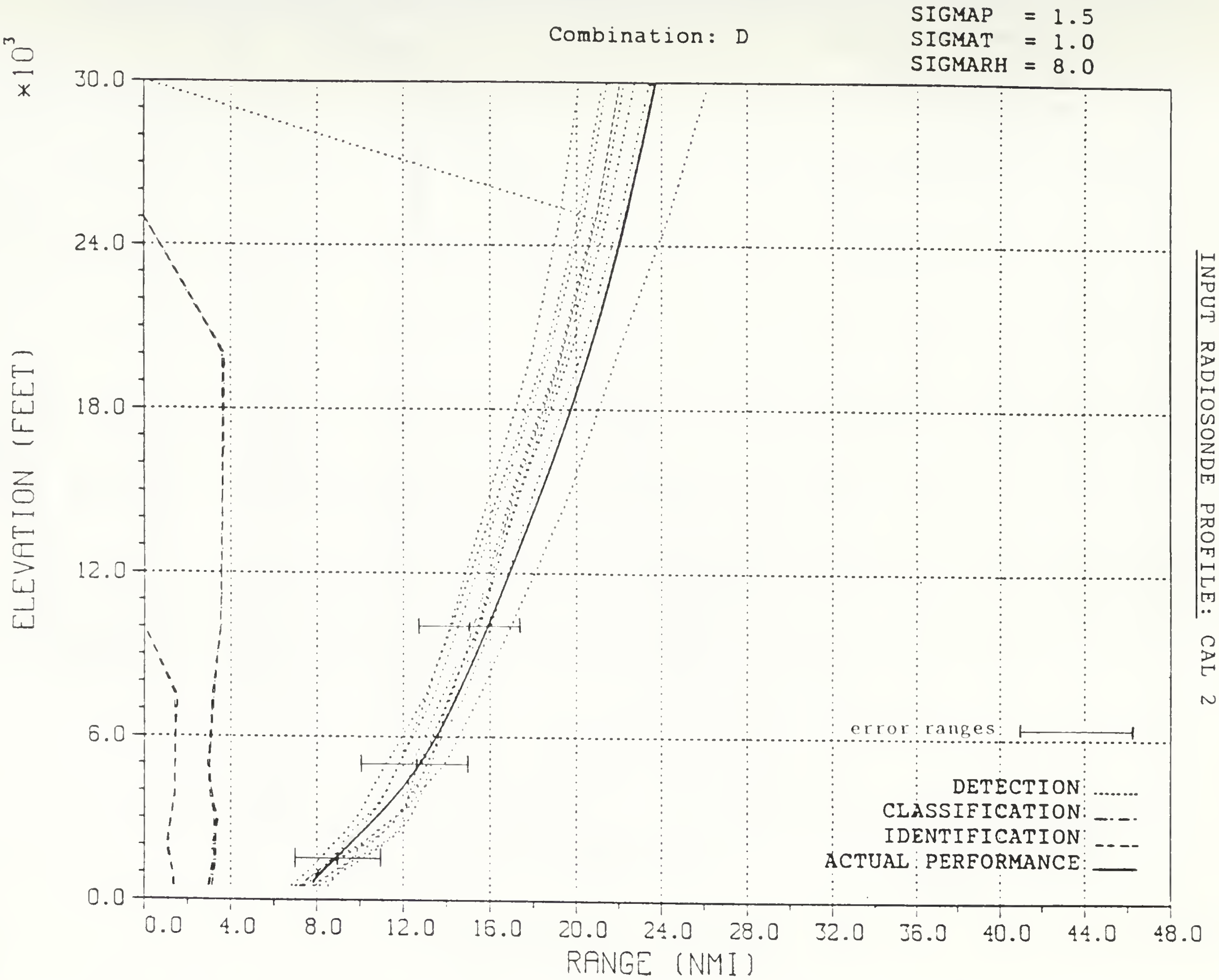

TARGET NUMBER 1
Combination: C
SIGMAP = 2.5
SIGMAT = 4.0
SIGMARH = 8.0
INPUT RADIOSONDE PROFILE: CAL 2
ELEVATION (FEET)
$\times 10^3$
30.0
24.0
18.0
12.0
6.0
0.0
RANGE (NMI)
0.0
4.0
8.0
12.0
16.0
20.0
24.0
28.0
32.0
36.0
40.0
44.0
48.0
error ranges
DETECTION
CLASSIFICATION
IDENTIFICATION
ACTUAL PERFORMANCE


TARGET NUMBER 2
Combination: C
SIGMAP = 2.5
SIGMAT = 4.0
SIGMARH = 8.0
ELEVATION (FEET)
$\times 10^3$
30.0
24.0
18.0
12.0
6.0
0.0
RANGE (NMI)
0.0
4.0
8.0
12.0
16.0
20.0
24.0
28.0
32.0
36.0
40.0
44.0
48.0
error ranges
DETECTION
CLASSIFICATION
IDENTIFICATION
ACTUAL PERFORMANCE

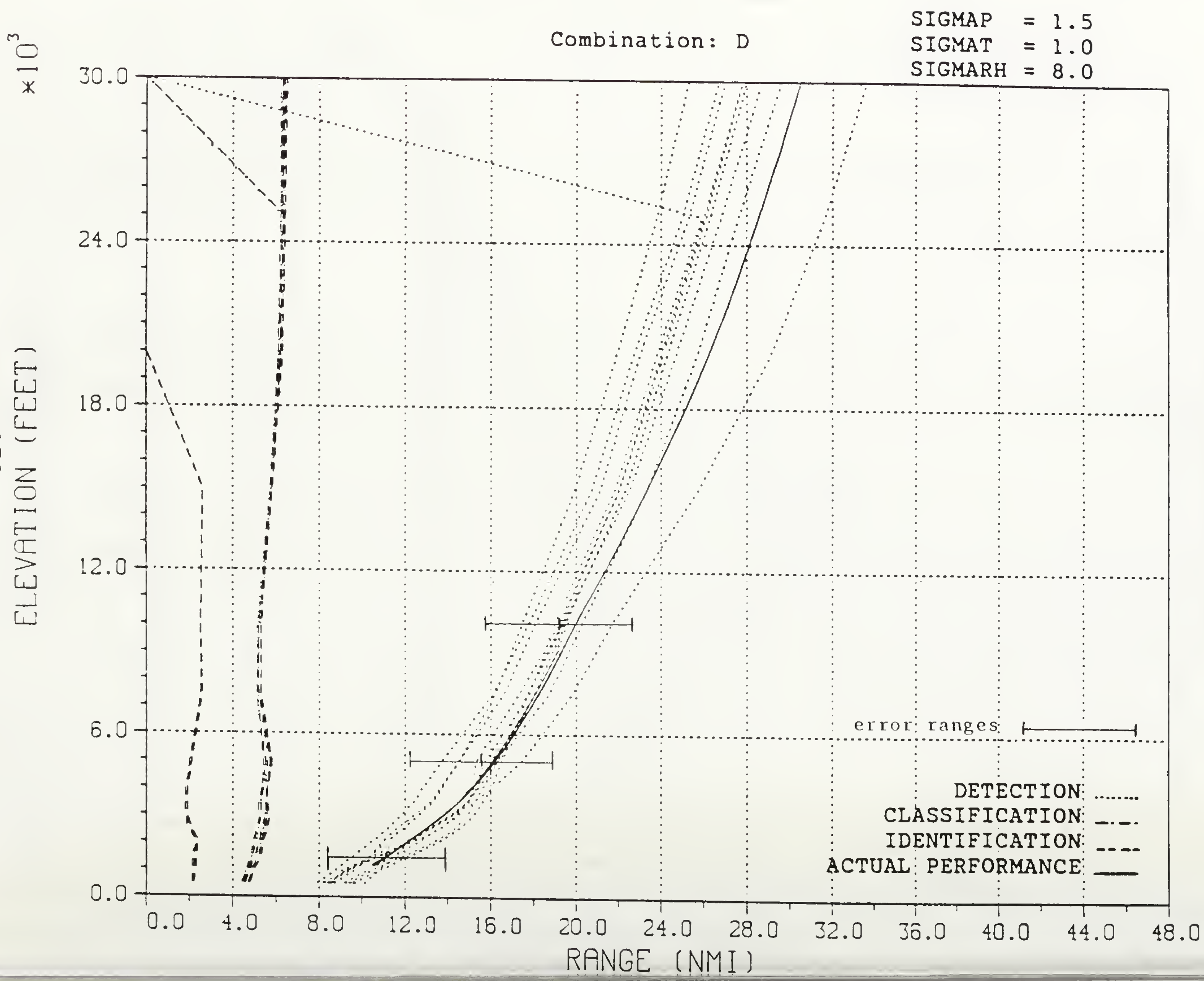

TARGET NUMBER 3
Combination: C
SIGMAP = 2.5
SIGMAT = 4.0
SIGMARH = 8.0
*10^3
ELEVATION (FEET)
30.0
24.0
18.0
12.0
6.0
0.0
0.0
4.0
8.0
12.0
16.0
20.0
24.0
28.0
32.0
36.0
40.0
44.0
48.0
RANGE (NMI)
error ranges
DETECTION
CLASSIFICATION
IDENTIFICATION
ACTUAL PERFORMANCE

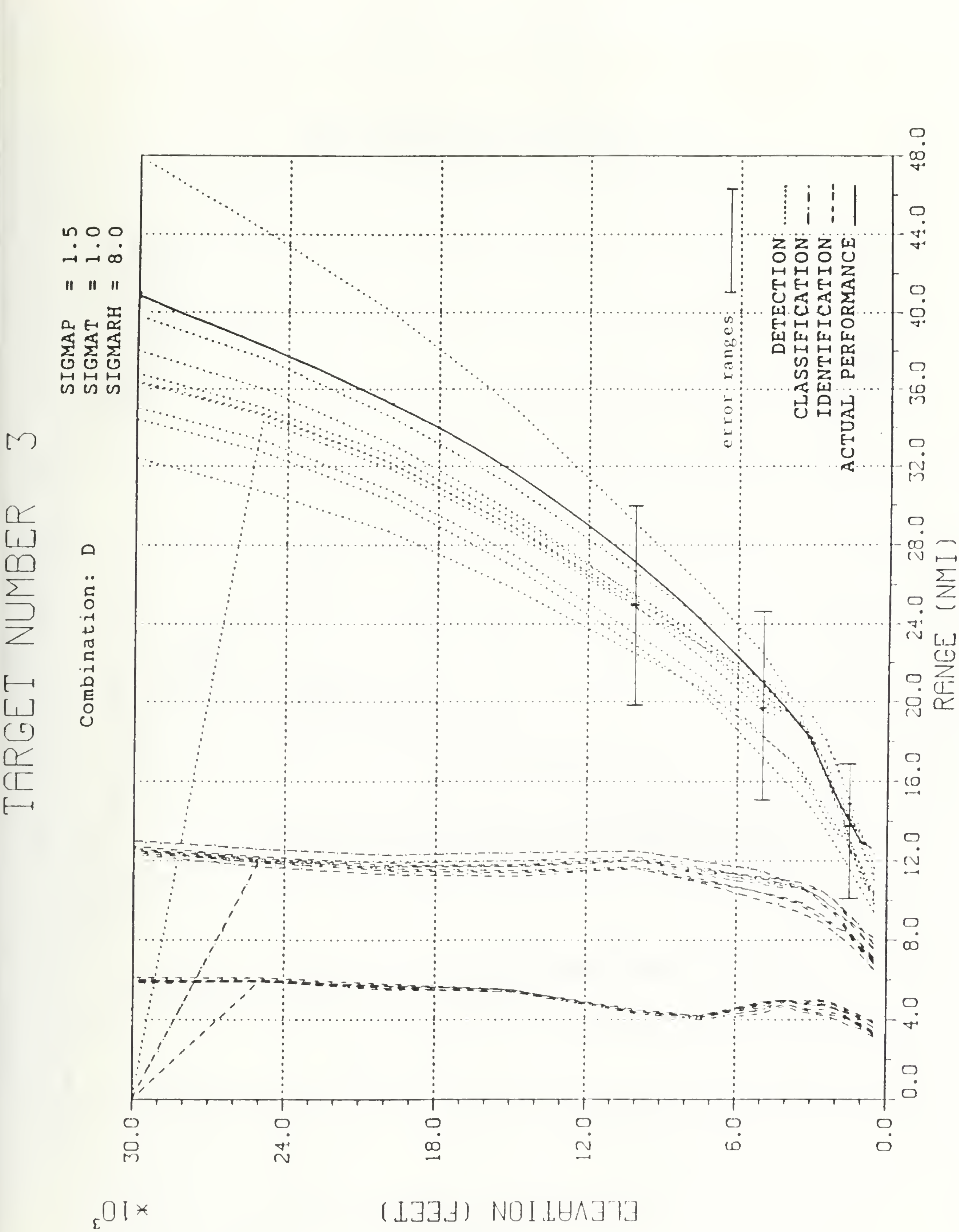

TARGET NUMBER 4
Combination: C
SIGMAP = 2.5
SIGMAT = 4.0
SIGMARH = 8.0
$\times 10^3$
ELEVATION (FEET)
30.0
24.0
18.0
12.0
6.0
0.0
0.0
4.0
8.0
12.0
16.0
20.0
24.0
28.0
32.0
36.0
40.0
44.0
48.0
RANGE (NMI)
error ranges
DETECTION
CLASSIFICATION
IDENTIFICATION
ACTUAL PERFORMANCE

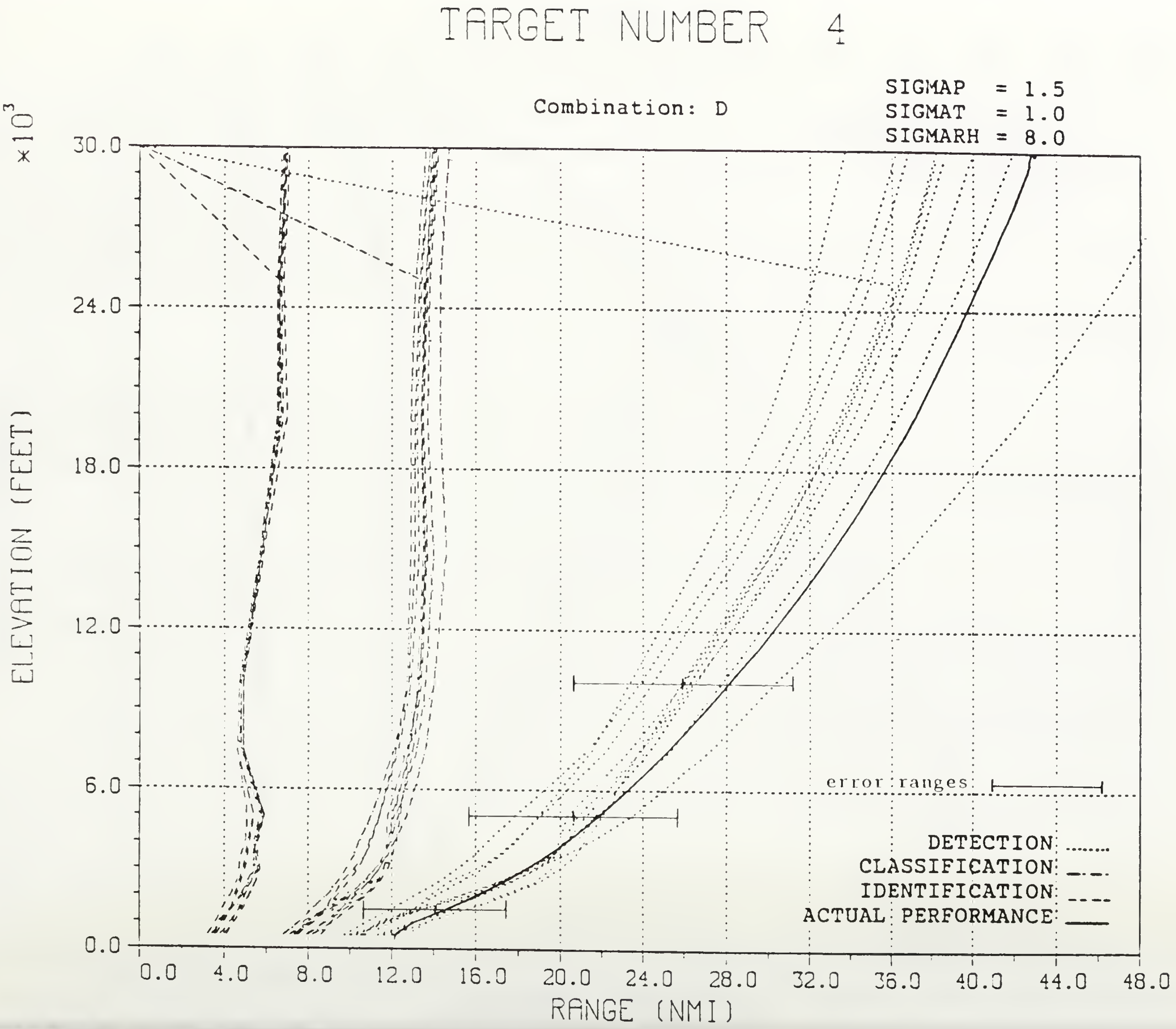
TARGET NUMBER 1



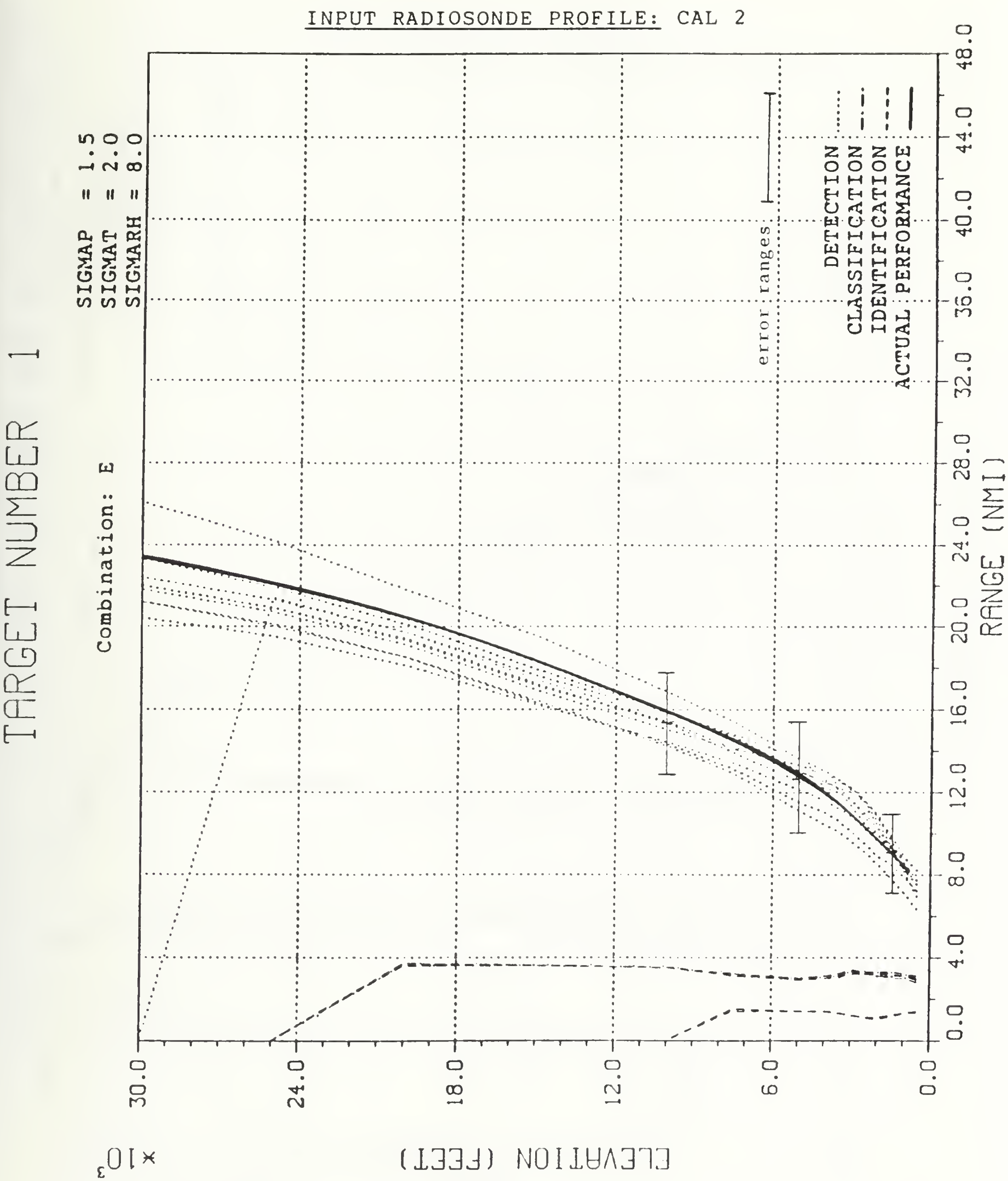
TARGET NUMBER 2

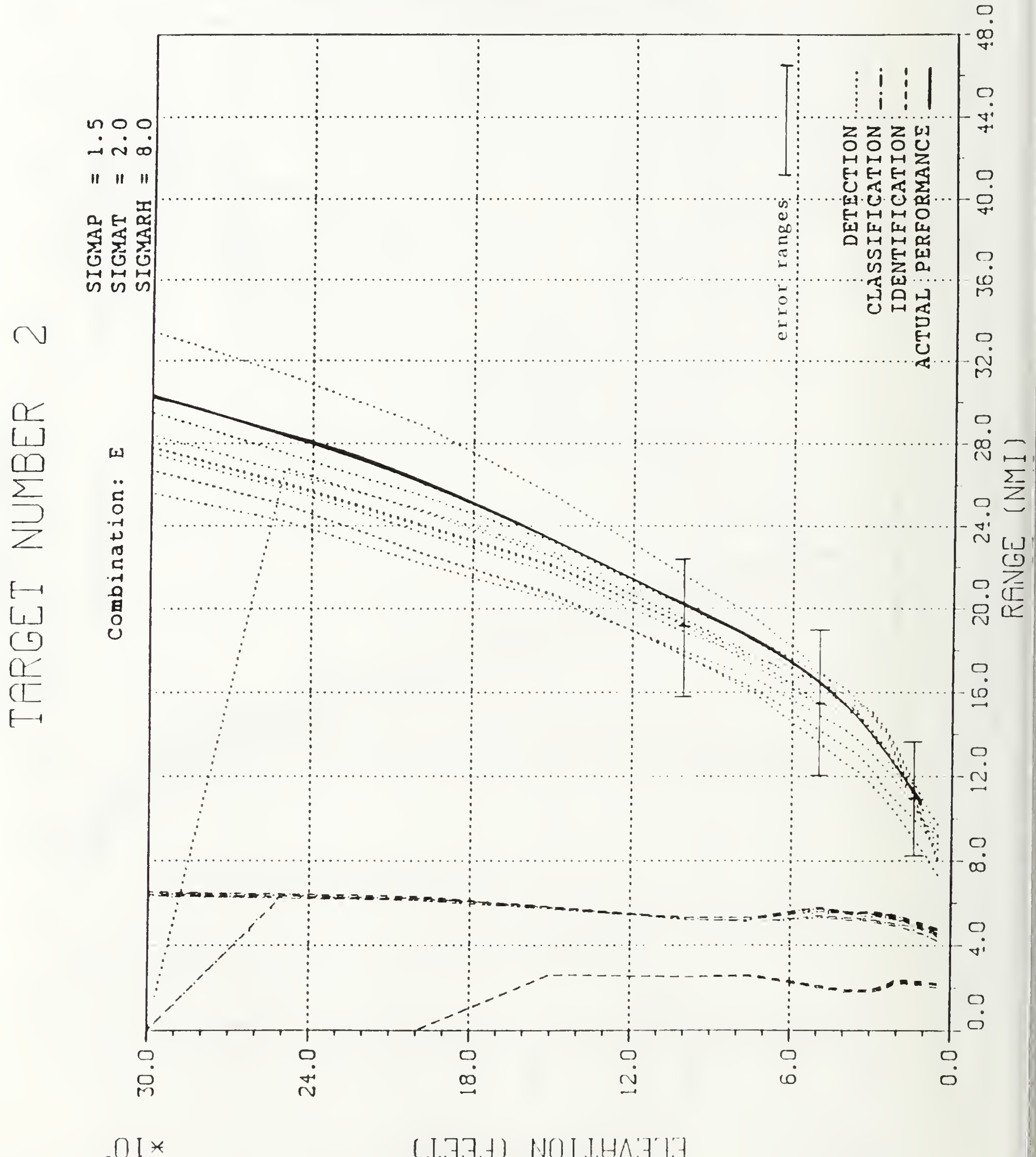



TARGET NUMBER 3
Combination: D
SIGMAP = 1.5
SIGMAT = 1.0
SIGMARH = 8.0
error ranges
DETECTION
CLASSIFICATION
IDENTIFICATION
ACTUAL PERFORMANCE
RANGE (NMI)
0.0 4.0 8.0 12.0 16.0 20.0 24.0 28.0 32.0 36.0 40.0 44.0 48.0
ELEVATION (FEET)
×10³
0.0 6.0 12.0 18.0 24.0 30.0

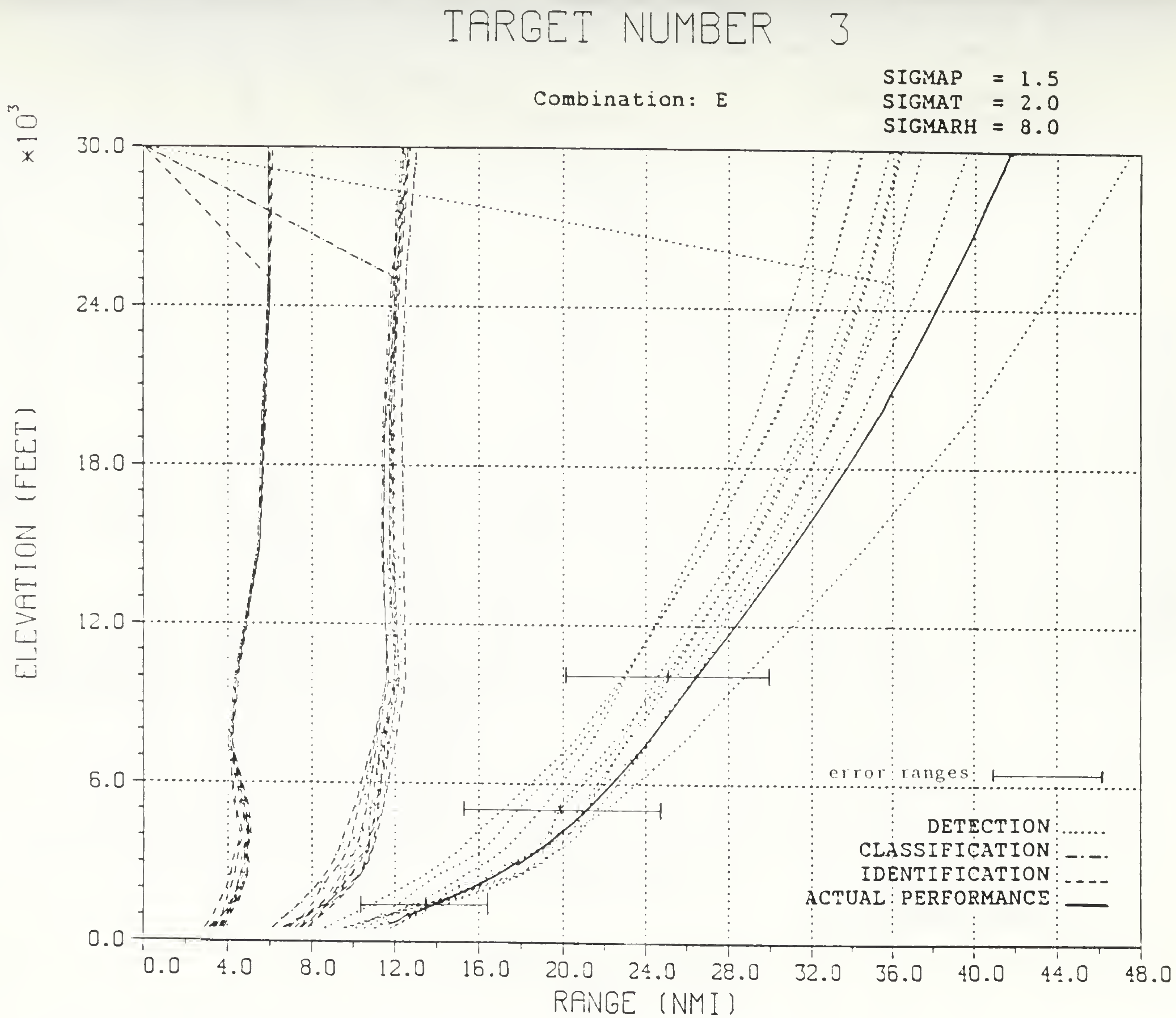


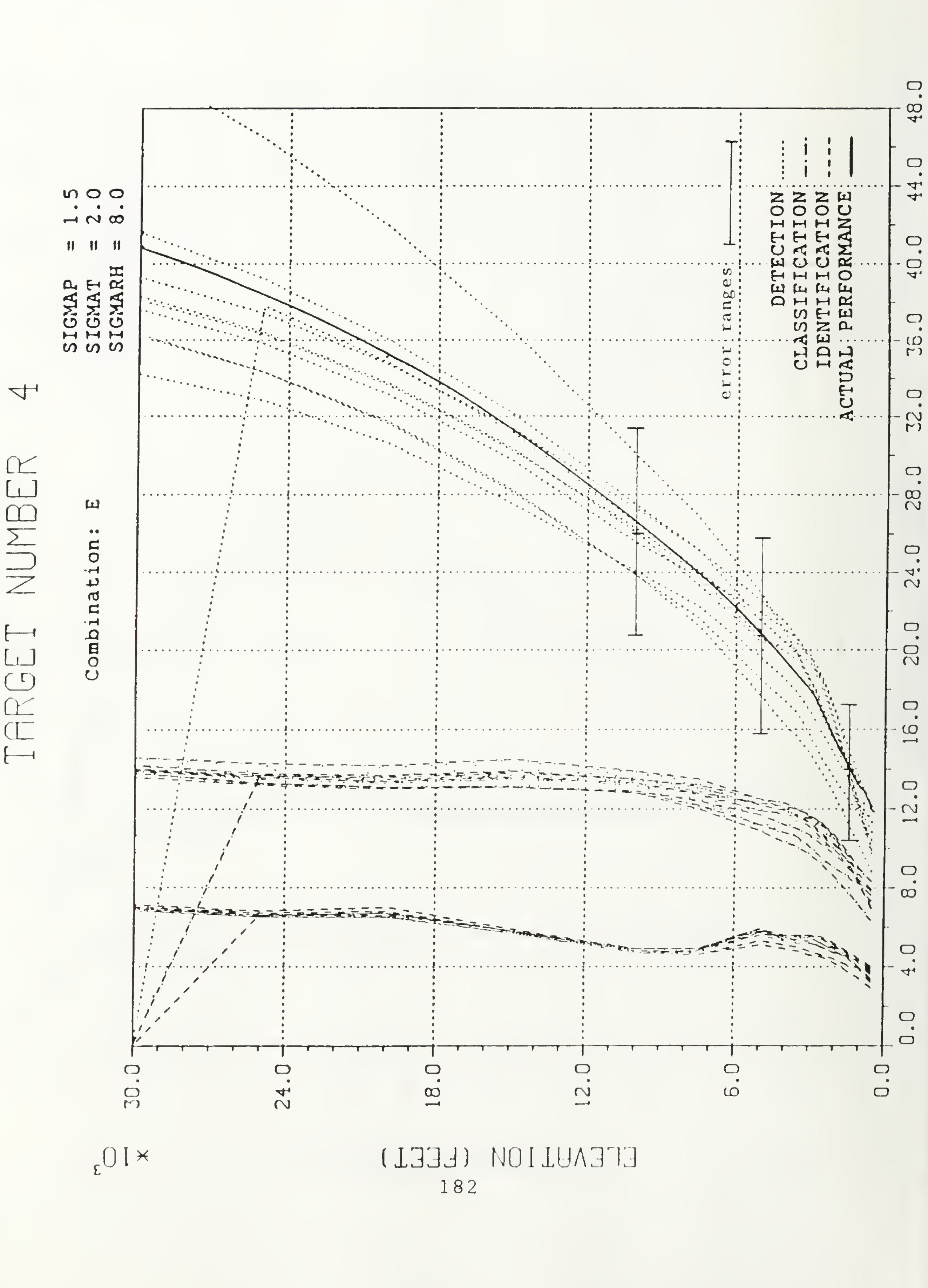
TARGET NUMBER 4
Combination: D
SIGMAP = 1.5
SIGMAT = 1.0
SIGMARH = 8.0
ELEVATION (FEET)
$\times 10^3$
30.0
24.0
18.0
12.0
6.0
0.0
0.0
4.0
8.0
12.0
16.0
20.0
24.0
28.0
32.0
36.0
40.0
44.0
48.0
RANGE (NMI)
error ranges
DETECTION
CLASSIFICATION
IDENTIFICATION
ACTUAL PERFORMANCE


TARGET NUMBER 1
INPUT RADIOSONDE PROFILE: CAL 2
Combination: E
SIGMAP = 1.5
SIGMAT = 2.0
SIGMARH = 8.0
error ranges
DETECTION
CLASSIFICATION
IDENTIFICATION
ACTUAL PERFORMANCE
RANGE (NMI)
0.0 4.0 8.0 12.0 16.0 20.0 24.0 28.0 32.0 36.0 40.0 44.0 48.0
ELEVATION (FEET)
x10^3
0.0 6.0 12.0 18.0 24.0 30.0

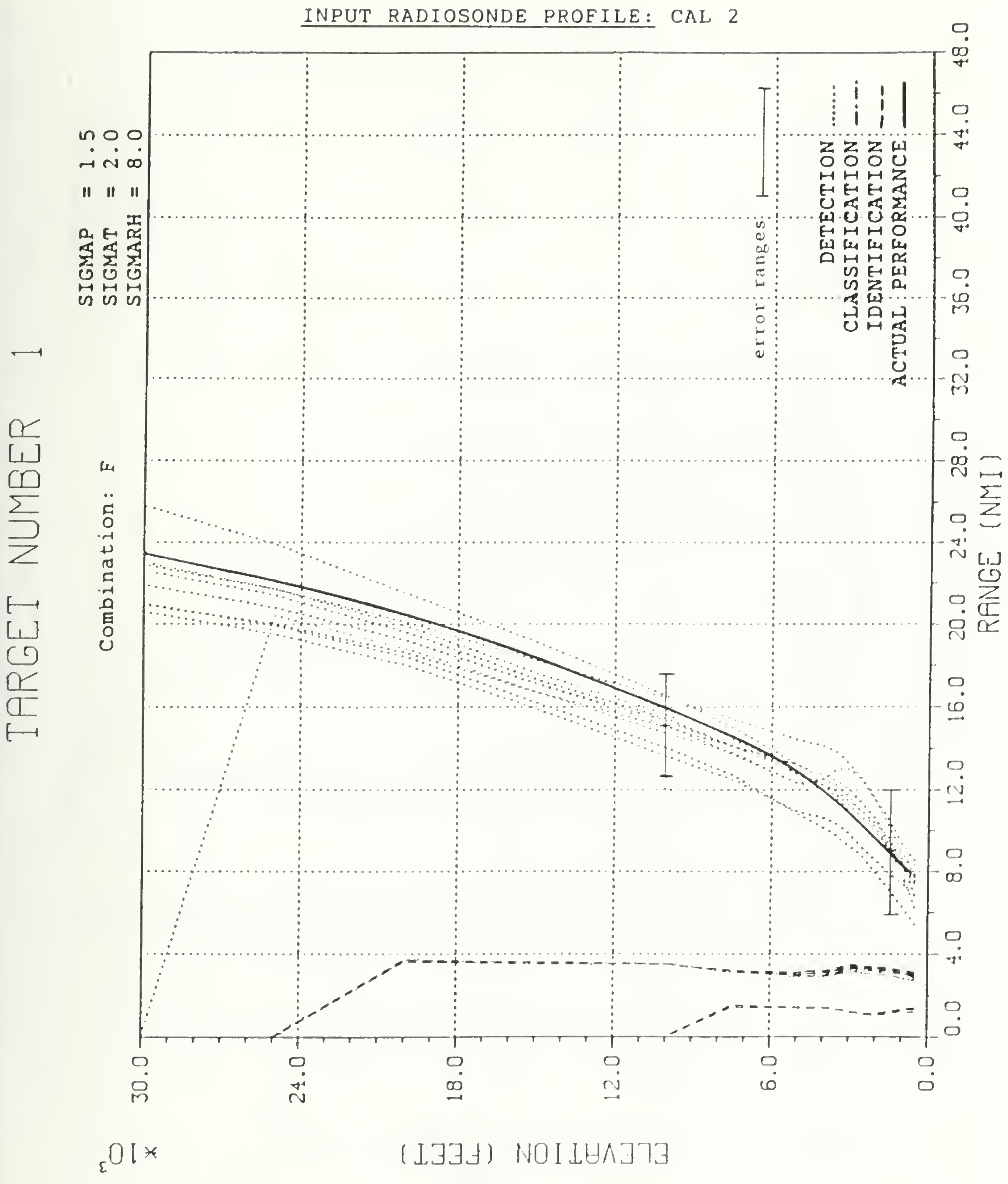


TARGET NUMBER 2
Combination: E
SIGMAP = 1.5
SIGMAT = 2.0
SIGMARH = 8.0
error ranges
DETECTION
CLASSIFICATION
IDENTIFICATION
ACTUAL PERFORMANCE
RANGE (NMI)
0.0
4.0
8.0
12.0
16.0
20.0
24.0
28.0
32.0
36.0
40.0
44.0
48.0
ELEVATION (FEET)
×10³
0.0
6.0
12.0
18.0
24.0
30.0

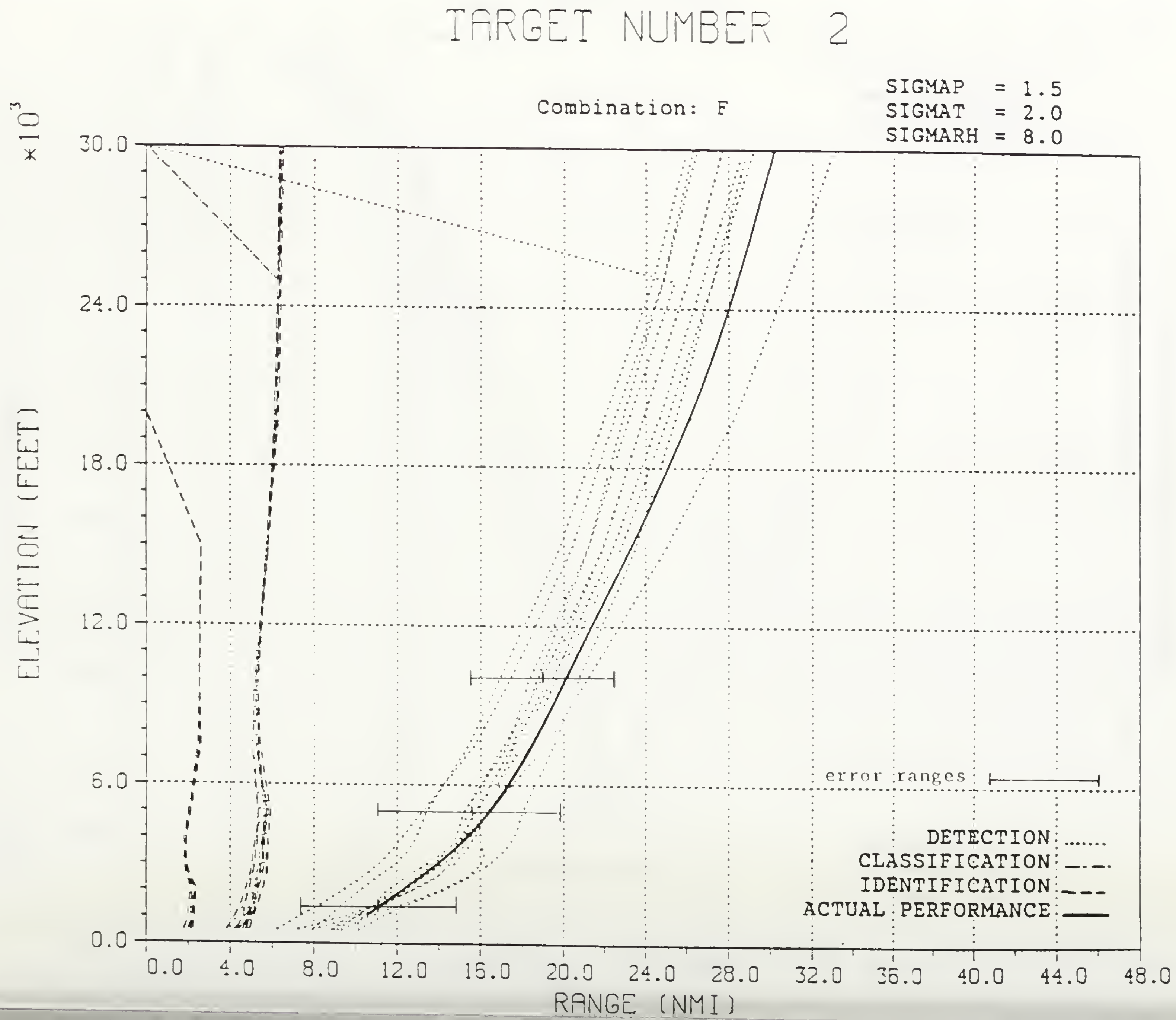

TARGET NUMBER 3
Combination: E
SIGMAP = 1.5
SIGMAT = 2.0
SIGMARH = 8.0
ELEVATION (FEET)
$\times 10^3$
30.0
24.0
18.0
12.0
6.0
0.0
0.0
4.0
8.0
12.0
16.0
20.0
24.0
28.0
32.0
36.0
40.0
44.0
48.0
RANGE (NMI)
error ranges
DETECTION
CLASSIFICATION
IDENTIFICATION
ACTUAL PERFORMANCE



TARGET NUMBER 4
Combination: E
SIGMAP = 1.5
SIGMAT = 2.0
SIGMARH = 8.0
error ranges
DETECTION
CLASSIFICATION
IDENTIFICATION
ACTUAL PERFORMANCE
RANGE (NMI)
ELEVATION (FEET)
×10³
0.0
4.0
8.0
12.0
16.0
20.0
24.0
28.0
32.0
36.0
40.0
44.0
48.0
0.0
6.0
12.0
18.0
24.0
30.0

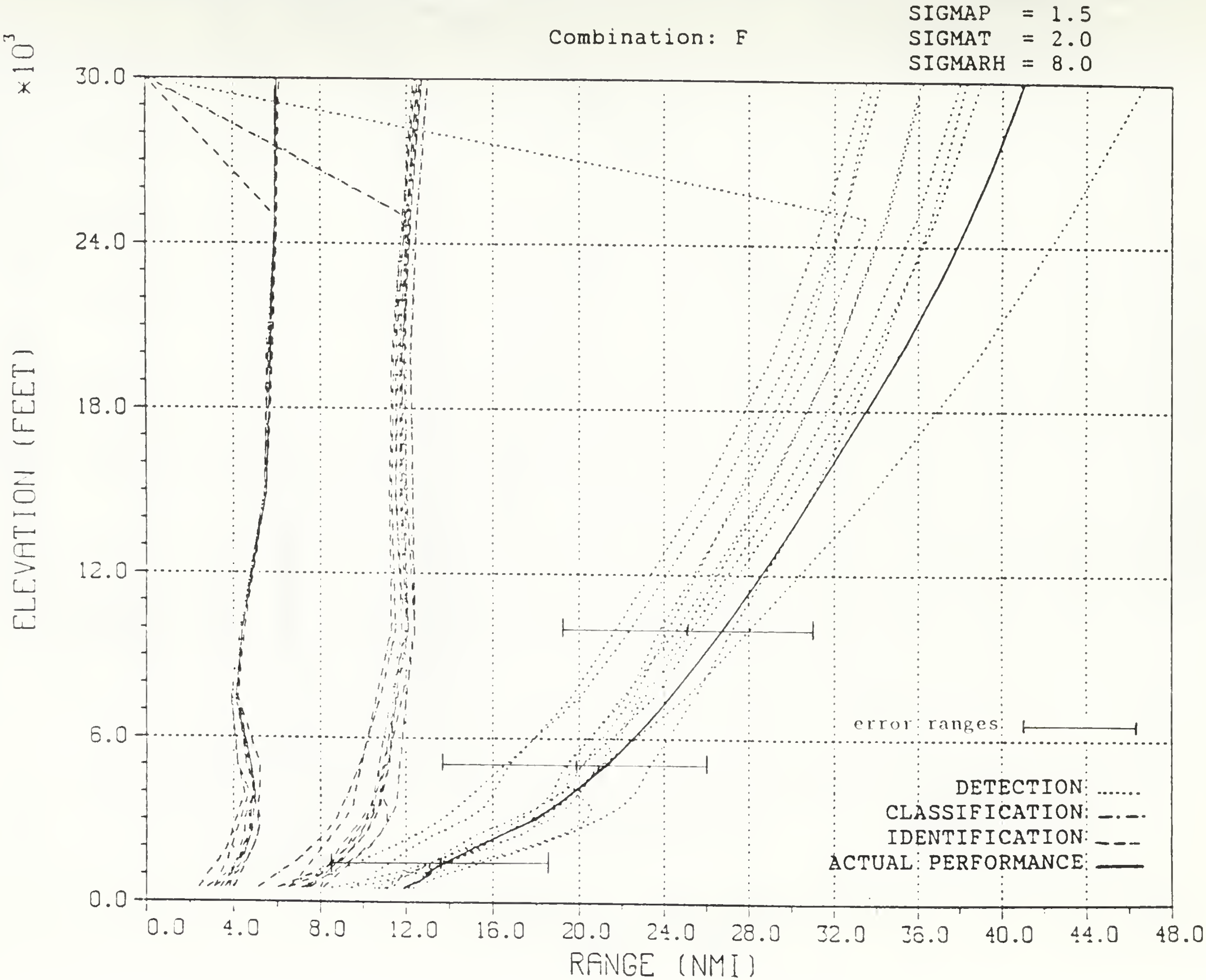


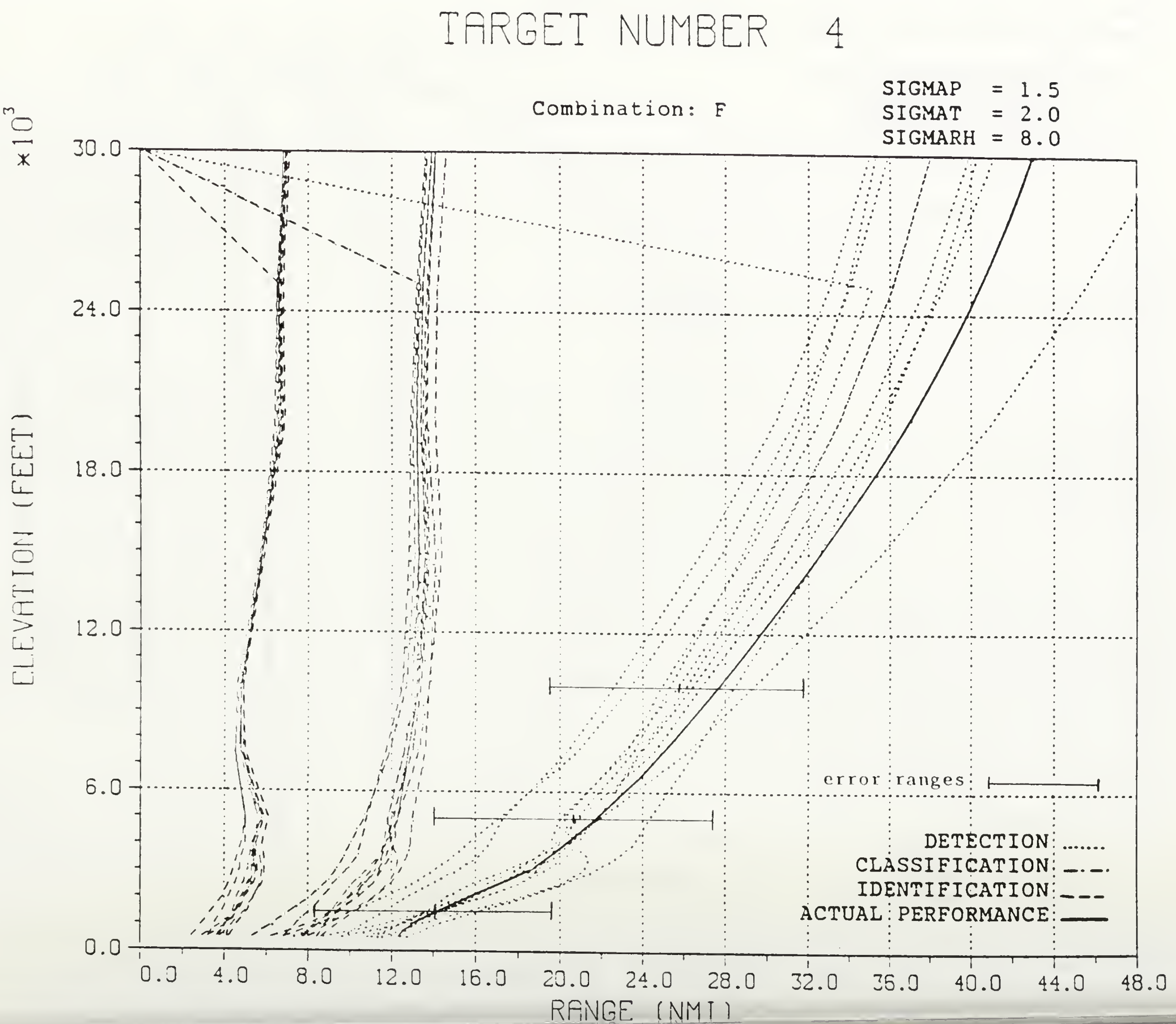
TARGET NUMBER 1
Combination: F
INPUT RADIOSONDE PROFILE: CAL 2
SIGMAP = 1.5
SIGMAT = 2.0
SIGMARH = 8.0
error ranges
DETECTION
CLASSIFICATION
IDENTIFICATION
ACTUAL PERFORMANCE
RANGE (NMI)
0.0
4.0
8.0
12.0
16.0
20.0
24.0
28.0
32.0
36.0
40.0
44.0
48.0
ELEVATION (FEET)
$\times 10^3$
0.0
6.0
12.0
18.0
24.0
30.0

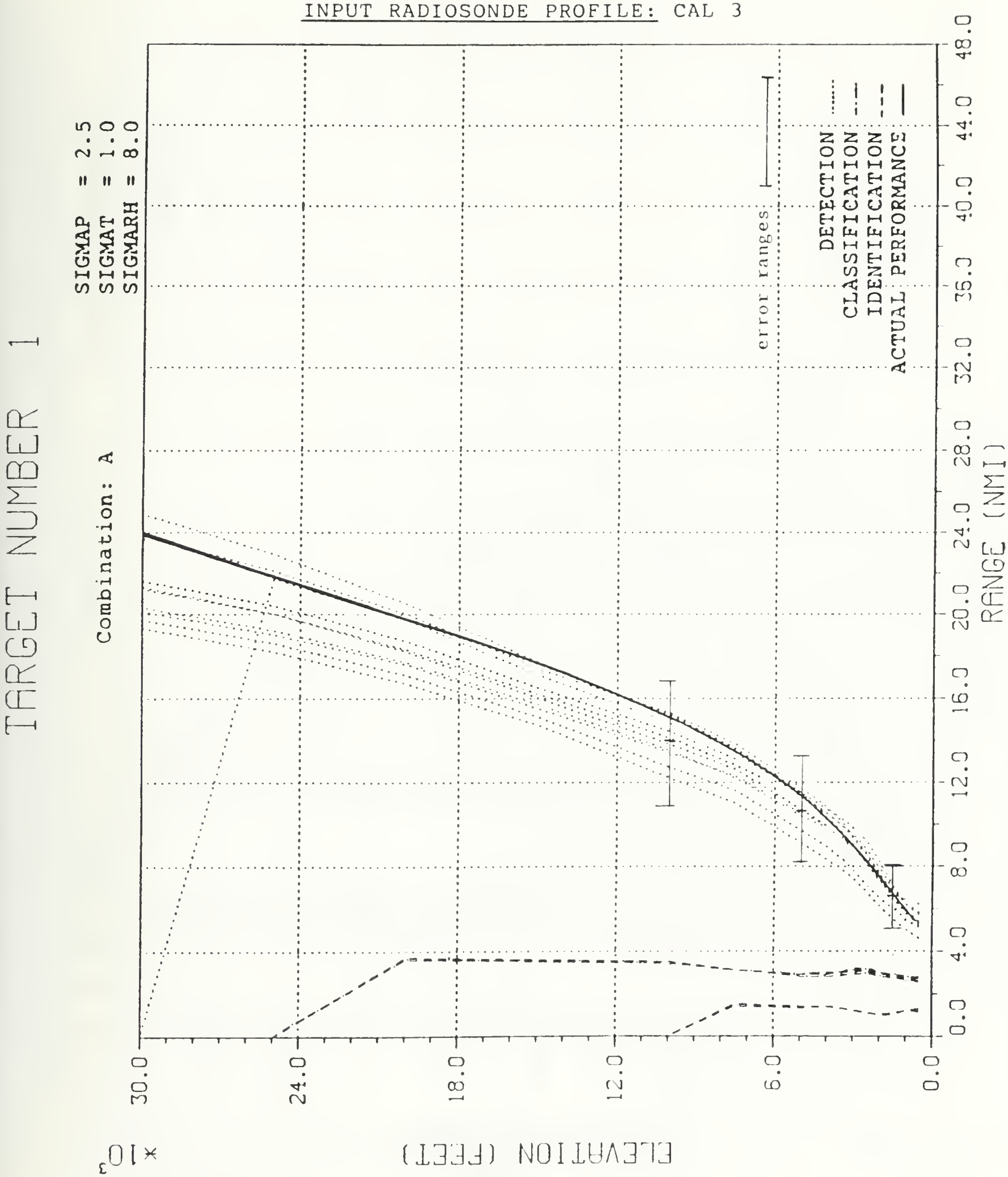


TARGET NUMBER 2
Combination: F
SIGMAP = 1.5
SIGMAT = 2.0
SIGMARH = 8.0
$\times 10^3$
ELEVATION (FEET)
30.0
24.0
18.0
12.0
6.0
0.0
RANGE (NMI)
0.0
4.0
8.0
12.0
16.0
20.0
24.0
28.0
32.0
36.0
40.0
44.0
48.0
error ranges
DETECTION
CLASSIFICATION
IDENTIFICATION
ACTUAL PERFORMANCE

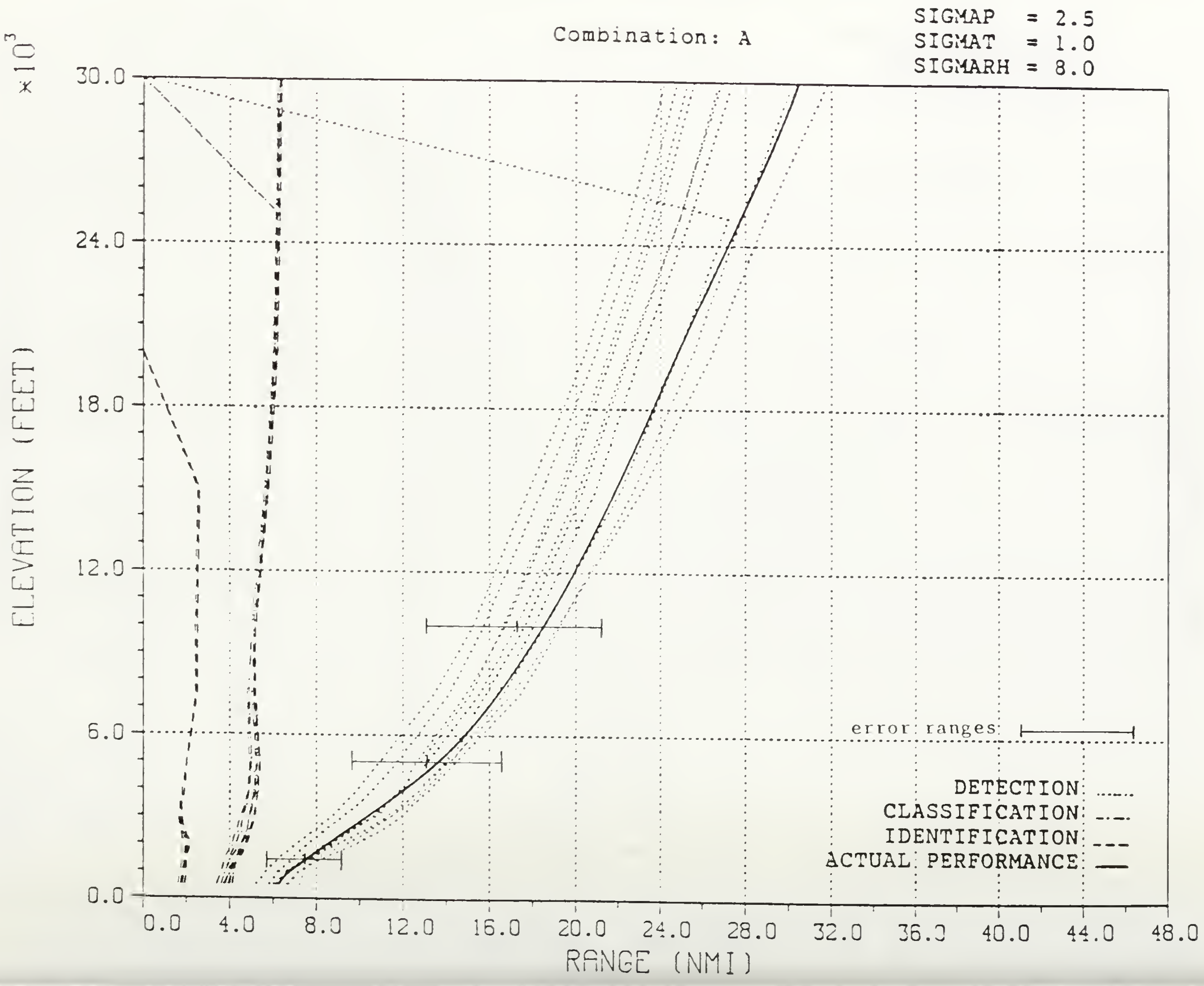
TARGET NUMBER 3

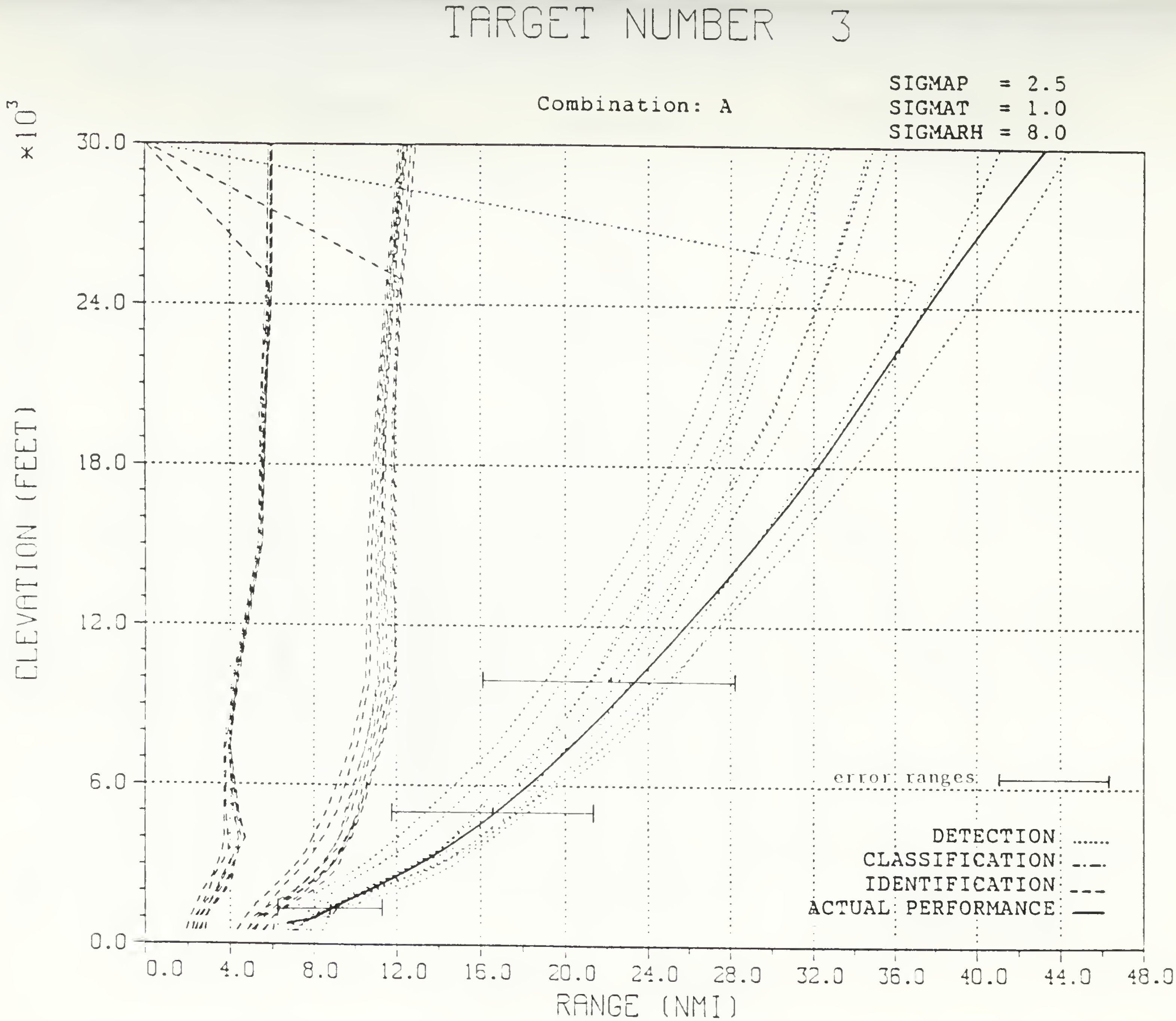


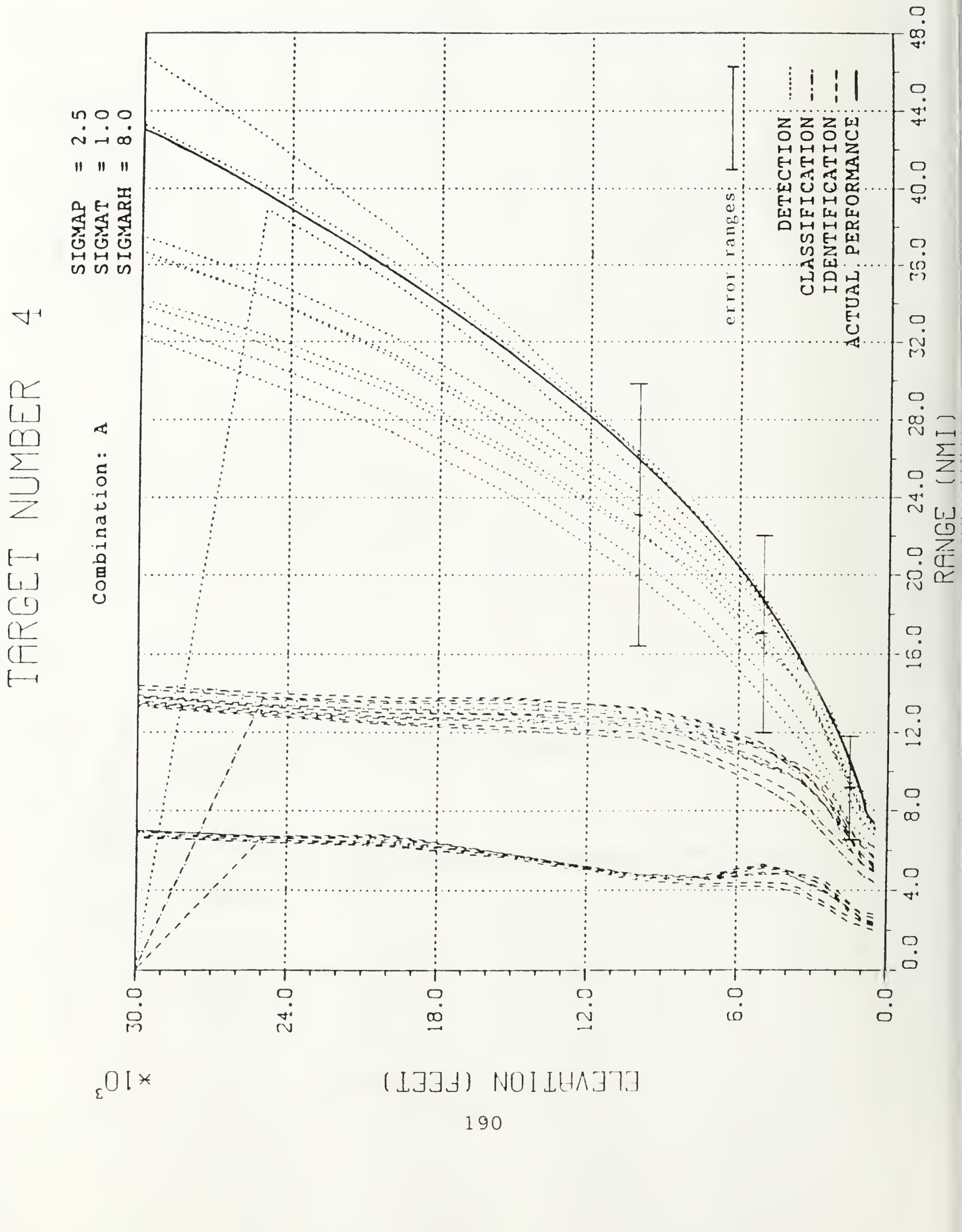

TARGET NUMBER 4
Combination: F
SIGMAP = 1.5
SIGMAT = 2.0
SIGMARH = 8.0
ELEVATION (FEET)
$\times 10^3$
RANGE (NMI)
error ranges
DETECTION
CLASSIFICATION
IDENTIFICATION
ACTUAL PERFORMANCE
30.0
24.0
18.0
12.0
6.0
0.0
0.0
4.0
8.0
12.0
16.0
20.0
24.0
28.0
32.0
36.0
40.0
44.0
48.0


TARGET NUMBER 1
INPUT RADIOSONDE PROFILE: CAL 3
Combination: A
SIGMAP = 2.5
SIGMAT = 1.0
SIGMARH = 8.0
error ranges
DETECTION
CLASSIFICATION
IDENTIFICATION
ACTUAL PERFORMANCE
RANGE (NMI)
0.0
4.0
8.0
12.0
16.0
20.0
24.0
28.0
32.0
36.0
40.0
44.0
48.0
ELEVATION (FEET)
$\times 10^3$
30.0
24.0
18.0
12.0
6.0
0.0

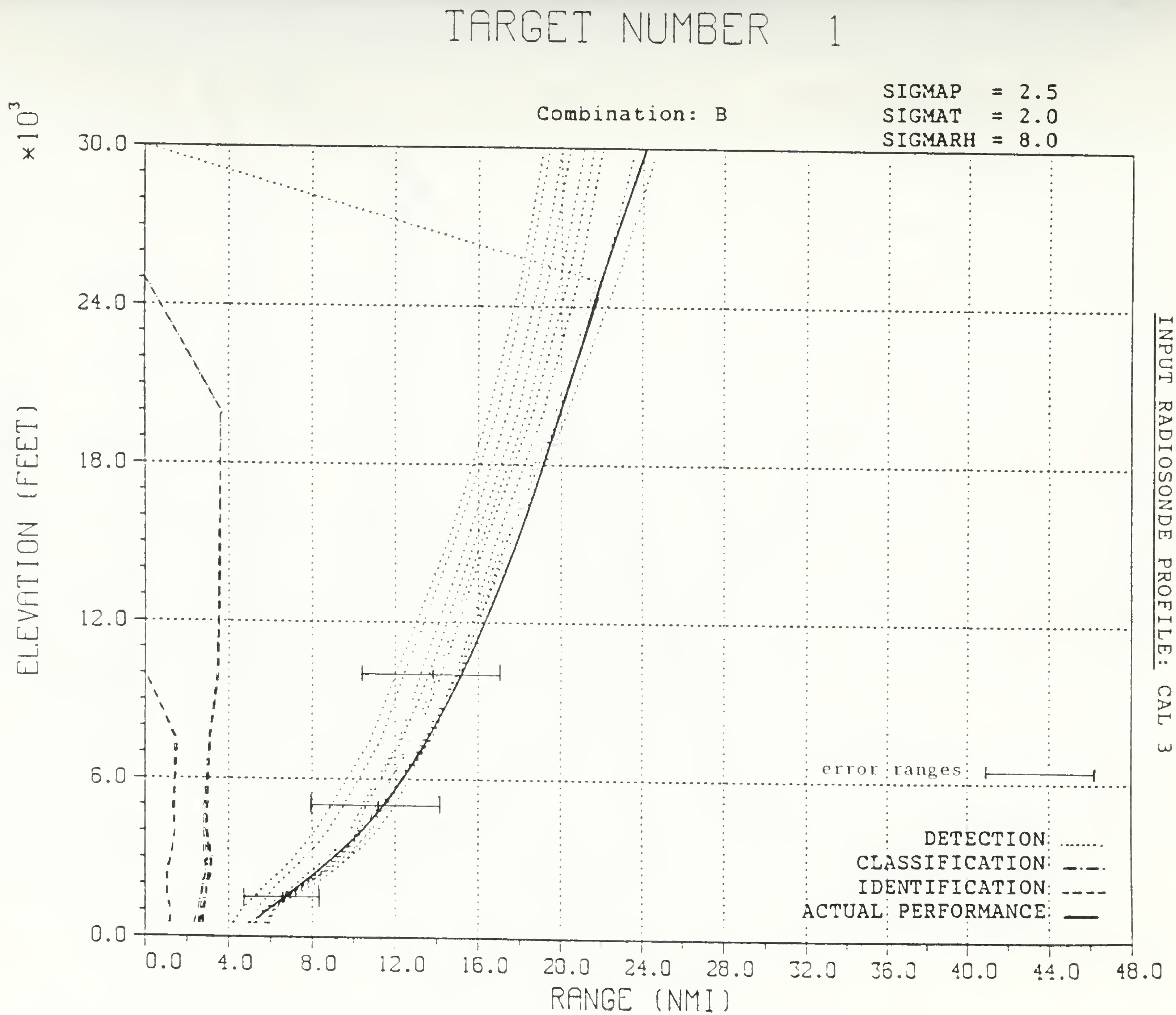
TARGET NUMBER 2



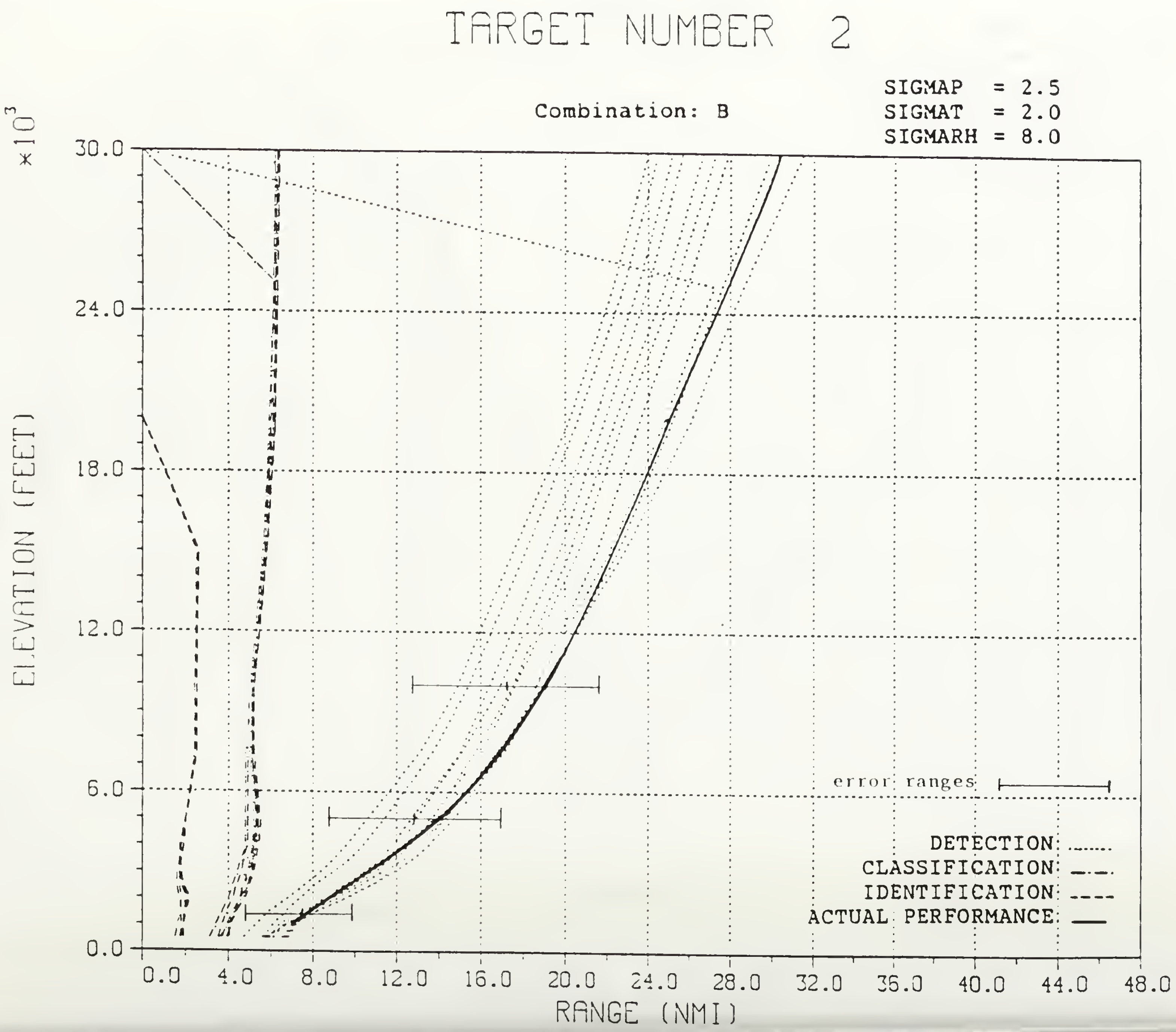

TARGET NUMBER 3
Combination: A
SIGMAP = 2.5
SIGMAT = 1.0
SIGMARH = 8.0
$\times 10^3$
ELEVATION (FEET)
30.0
24.0
18.0
12.0
6.0
0.0
RANGE (NMI)
0.0
4.0
8.0
12.0
16.0
20.0
24.0
28.0
32.0
36.0
40.0
44.0
48.0
error ranges
DETECTION
CLASSIFICATION
IDENTIFICATION
ACTUAL PERFORMANCE

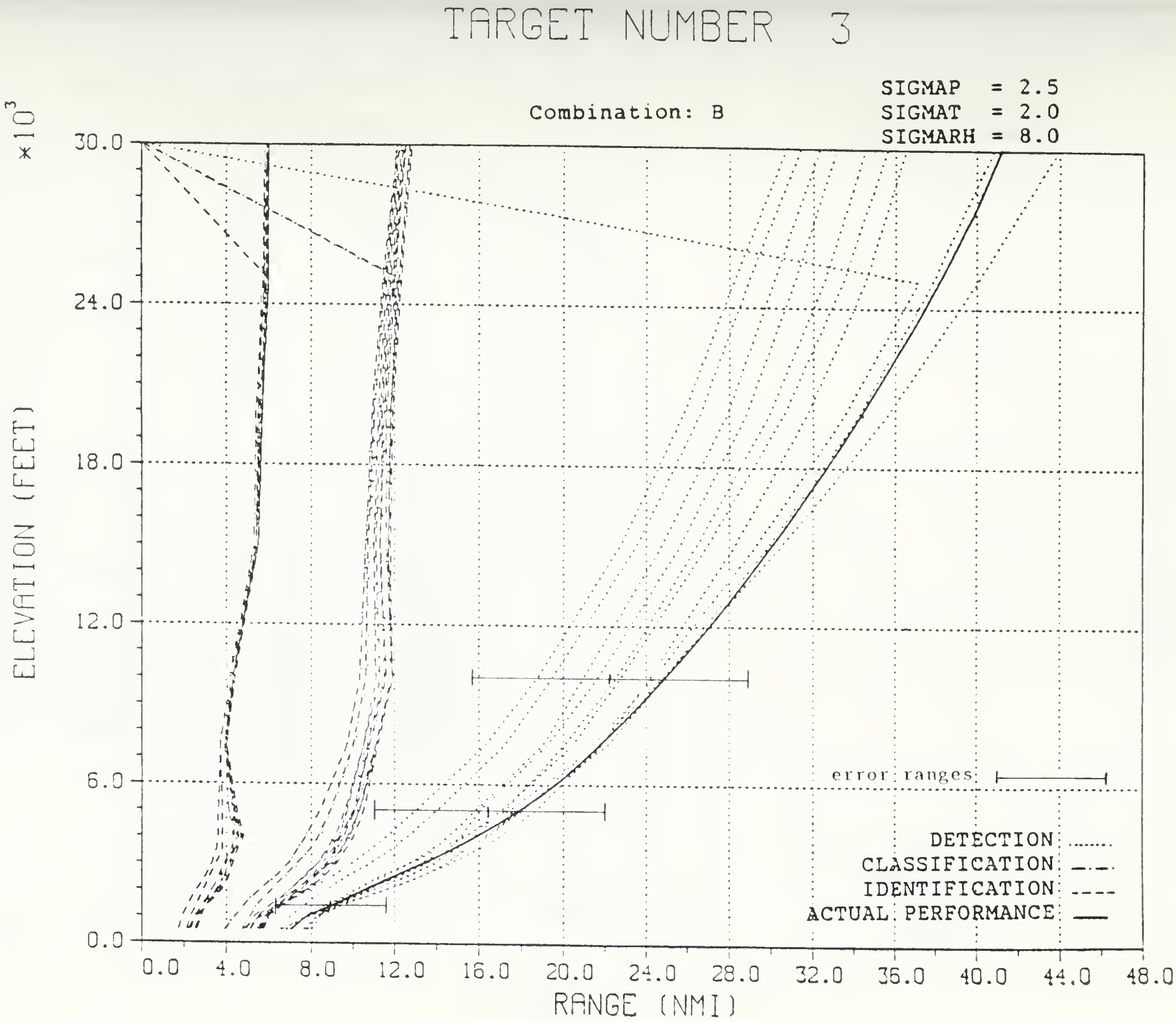


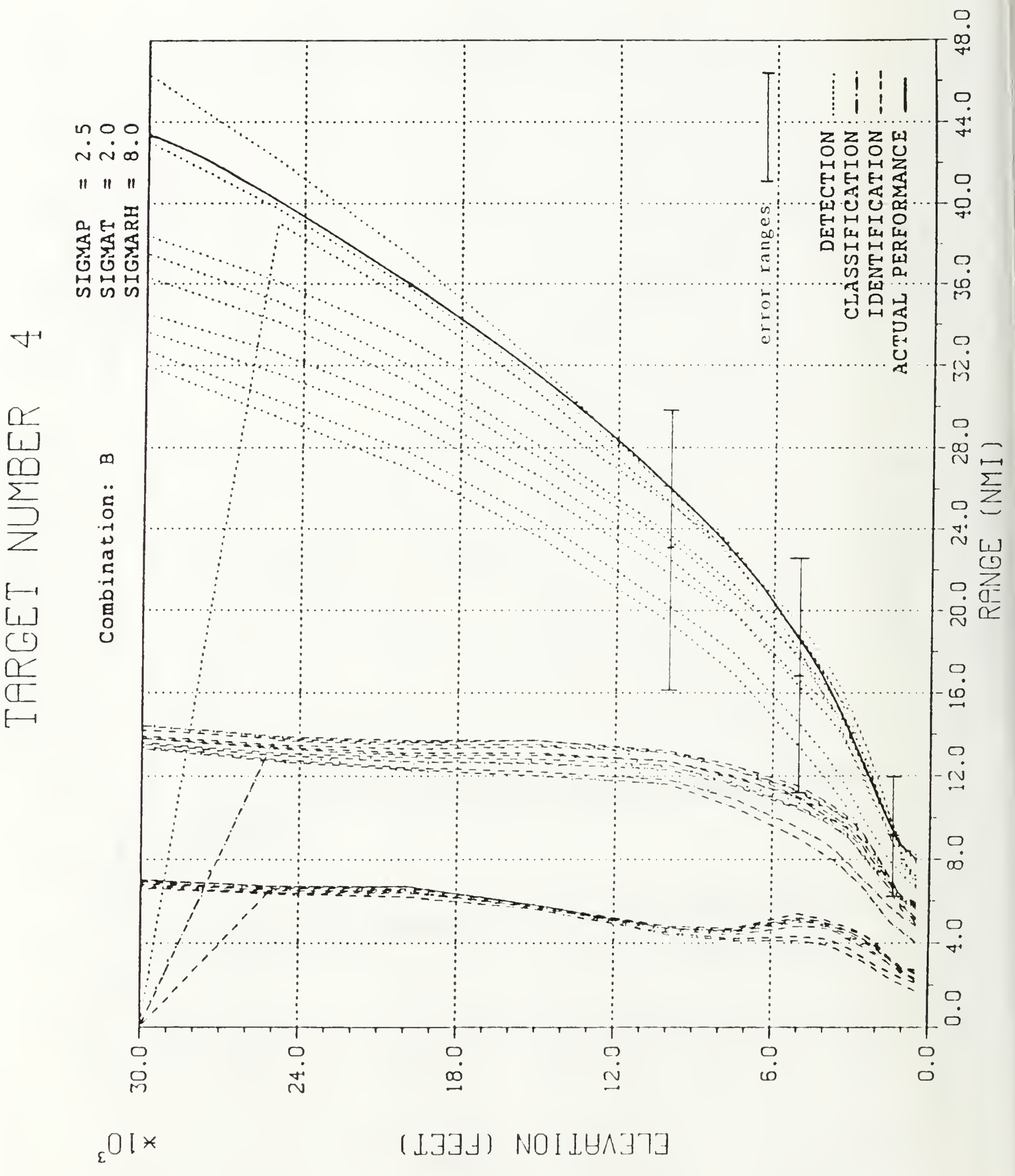
TARGET NUMBER 4
Combination: A
SIGMAP = 2.5
SIGMAT = 1.0
SIGMARH = 8.0
error ranges
DETECTION
CLASSIFICATION
IDENTIFICATION
ACTUAL PERFORMANCE
RANGE (NMI)
0.0
4.0
8.0
12.0
16.0
20.0
24.0
28.0
32.0
35.0
40.0
44.0
48.0
ELEVATION (FEET)
×10³
0.0
6.0
12.0
18.0
24.0
30.0



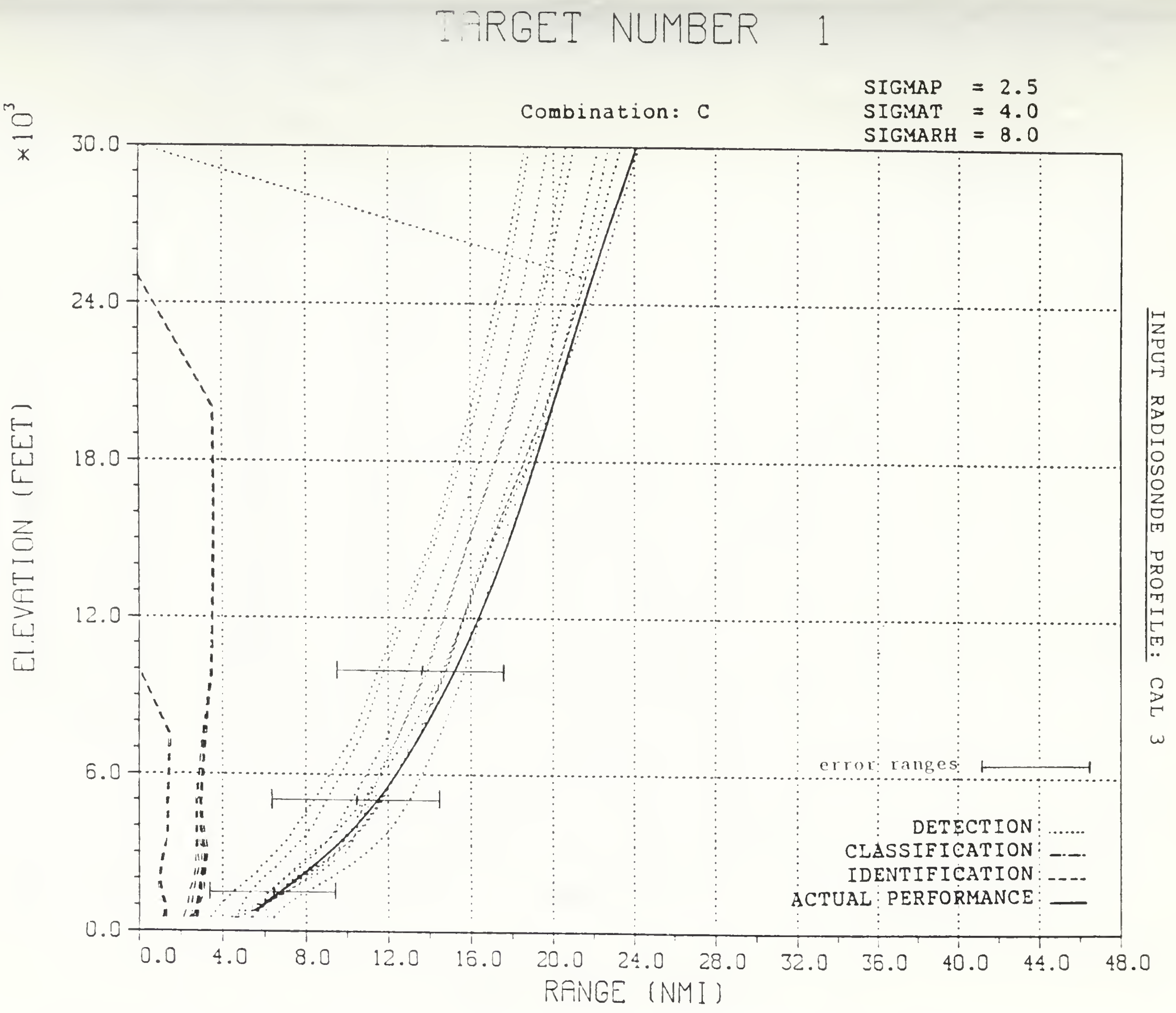
TARGET NUMBER 1
Combination: B
SIGMAP = 2.5
SIGMAT = 2.0
SIGMARH = 8.0
INPUT RADIOSONDE PROFILE: CAL 3
ELEVATION (FEET) ×10^3
RANGE (NMI)
0.0
6.0
12.0
18.0
24.0
30.0
0.0
4.0
8.0
12.0
16.0
20.0
24.0
28.0
32.0
36.0
40.0
44.0
48.0
error ranges
DETECTION
CLASSIFICATION
IDENTIFICATION
ACTUAL PERFORMANCE


TARGET NUMBER 2
Combination: B
SIGMAP = 2.5
SIGMAT = 2.0
SIGMARH = 8.0
ELEVATION (FEET)
$\times 10^3$
30.0
24.0
18.0
12.0
6.0
0.0
0.0
4.0
8.0
12.0
16.0
20.0
24.0
28.0
32.0
36.0
40.0
44.0
48.0
RANGE (NMI)
error ranges
DETECTION
CLASSIFICATION
IDENTIFICATION
ACTUAL PERFORMANCE

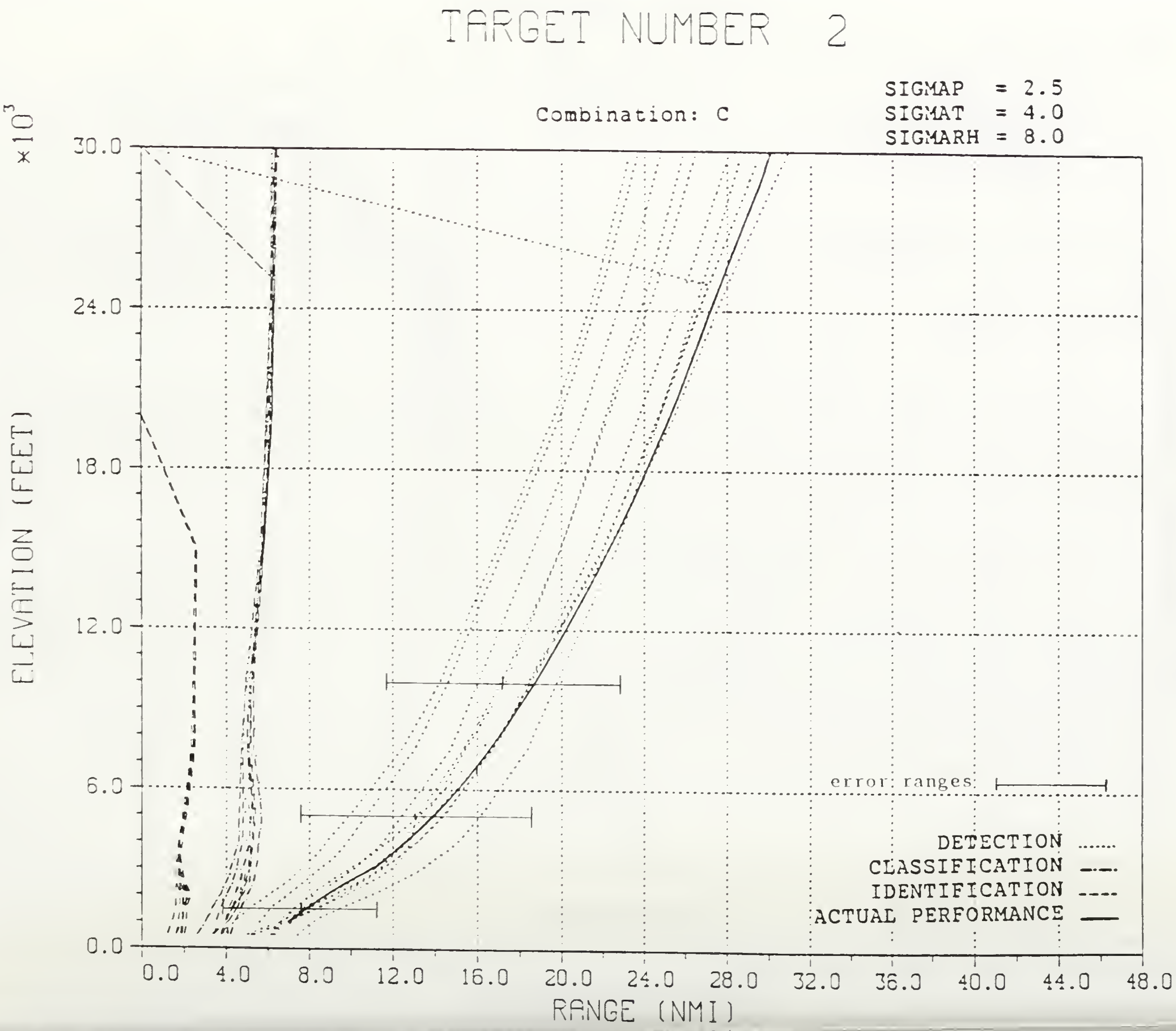

TARGET NUMBER 3
Combination: B
SIGMAP = 2.5
SIGMAT = 2.0
SIGMARH = 8.0
ELEVATION (FEET)
$*10^3$
30.0
24.0
18.0
12.0
6.0
0.0
0.0
4.0
8.0
12.0
16.0
20.0
24.0
28.0
32.0
36.0
40.0
44.0
48.0
RANGE (NMI)
error ranges
DETECTION
CLASSIFICATION
IDENTIFICATION
ACTUAL PERFORMANCE



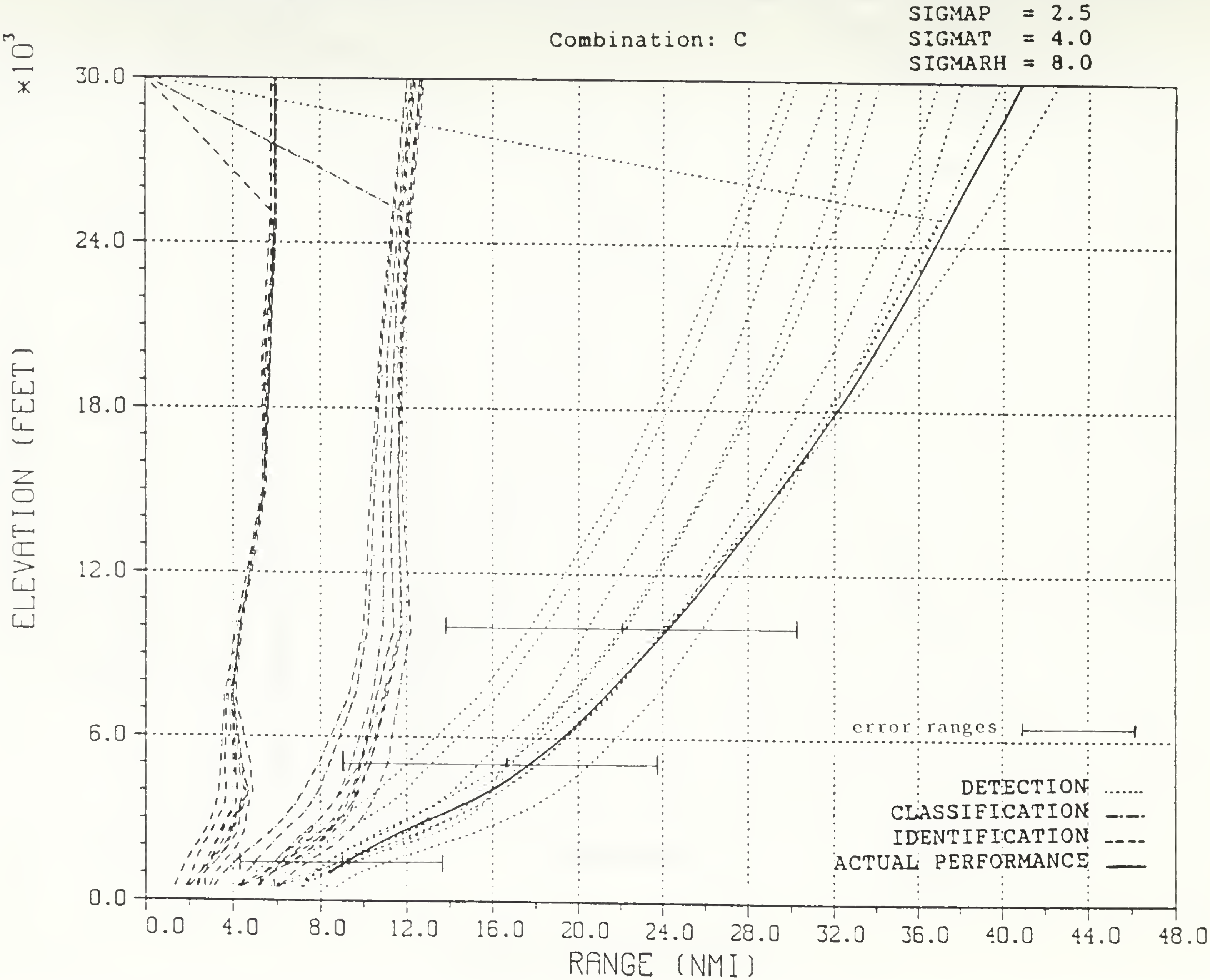
TARGET NUMBER 4
Combination: B
SIGMAP = 2.5
SIGMAT = 2.0
SIGMARH = 8.0
error ranges
DETECTION
CLASSIFICATION
IDENTIFICATION
ACTUAL PERFORMANCE
ELEVATION (FEET)
×10³
30.0
24.0
18.0
12.0
6.0
0.0
RANGE (NMI)
0.0
4.0
8.0
12.0
16.0
20.0
24.0
28.0
32.0
36.0
40.0
44.0
48.0

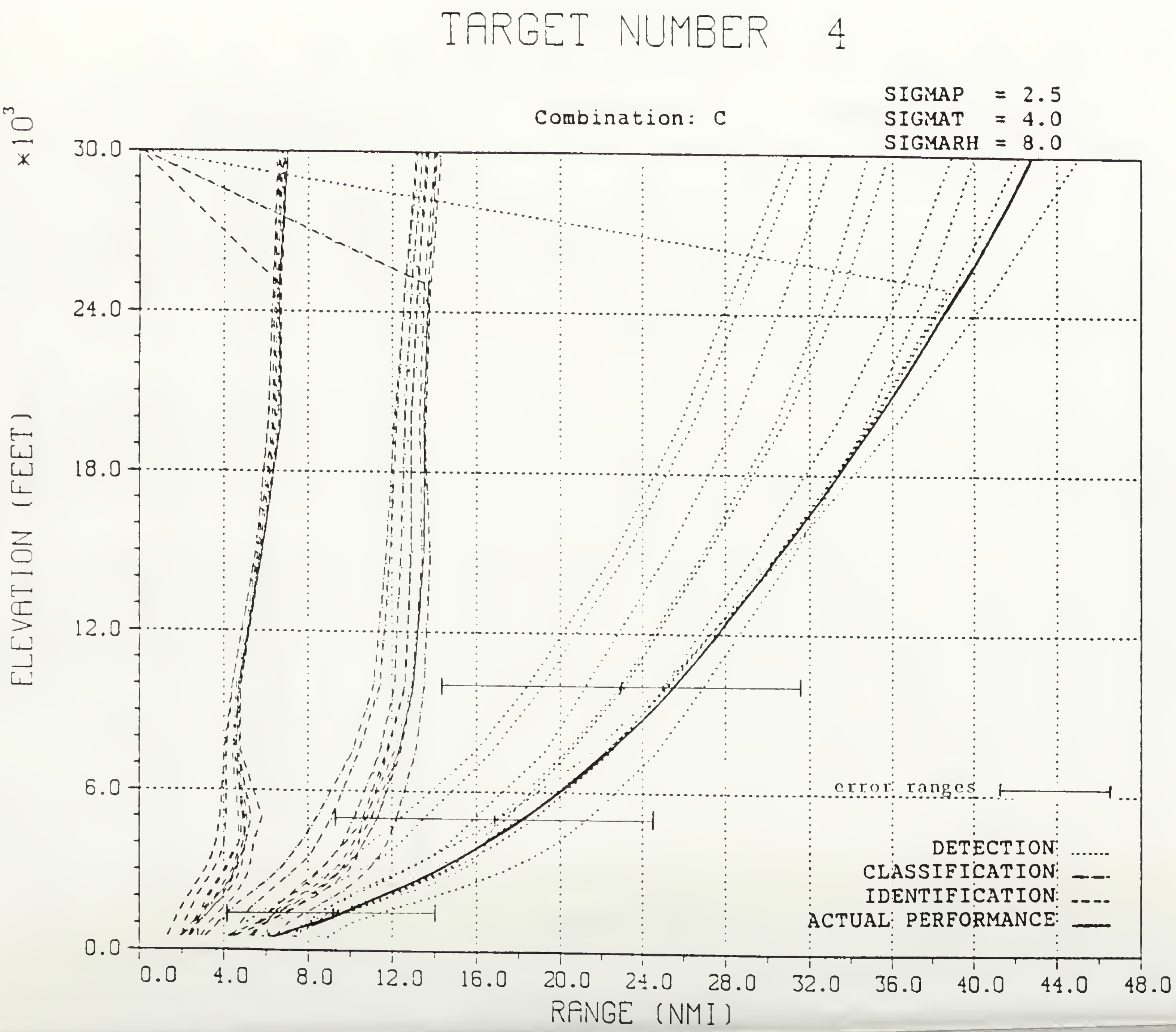


TARGET NUMBER 1
Combination: C
SIGMAP = 2.5
SIGMAT = 4.0
SIGMARH = 8.0
INPUT RADIOSONDE PROFILE: CAL 3
$\times 10^3$
ELEVATION (FEET)
30.0
24.0
18.0
12.0
6.0
0.0
0.0
4.0
8.0
12.0
16.0
20.0
24.0
28.0
32.0
36.0
40.0
44.0
48.0
RANGE (NMI)
error ranges
DETECTION
CLASSIFICATION
IDENTIFICATION
ACTUAL PERFORMANCE

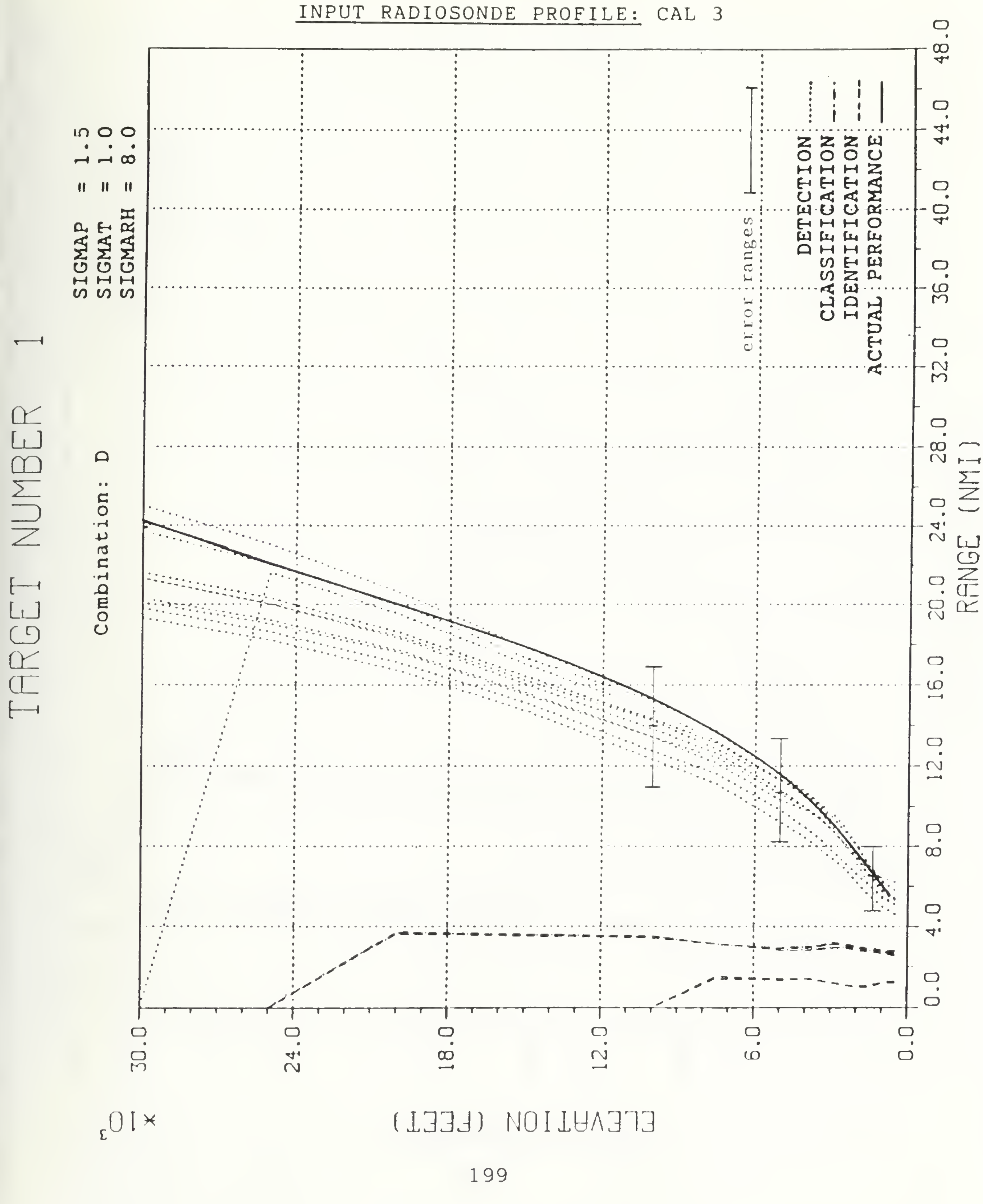

TARGET NUMBER 2
Combination: C
SIGMAP = 2.5
SIGMAT = 4.0
SIGMARH = 8.0
ELEVATION (FEET)
$\times 10^3$
30.0
24.0
18.0
12.0
6.0
0.0
RANGE (NMI)
0.0
4.0
8.0
12.0
16.0
20.0
24.0
28.0
32.0
36.0
40.0
44.0
48.0
error ranges
DETECTION
CLASSIFICATION
IDENTIFICATION
ACTUAL PERFORMANCE

TARGET NUMBER 3

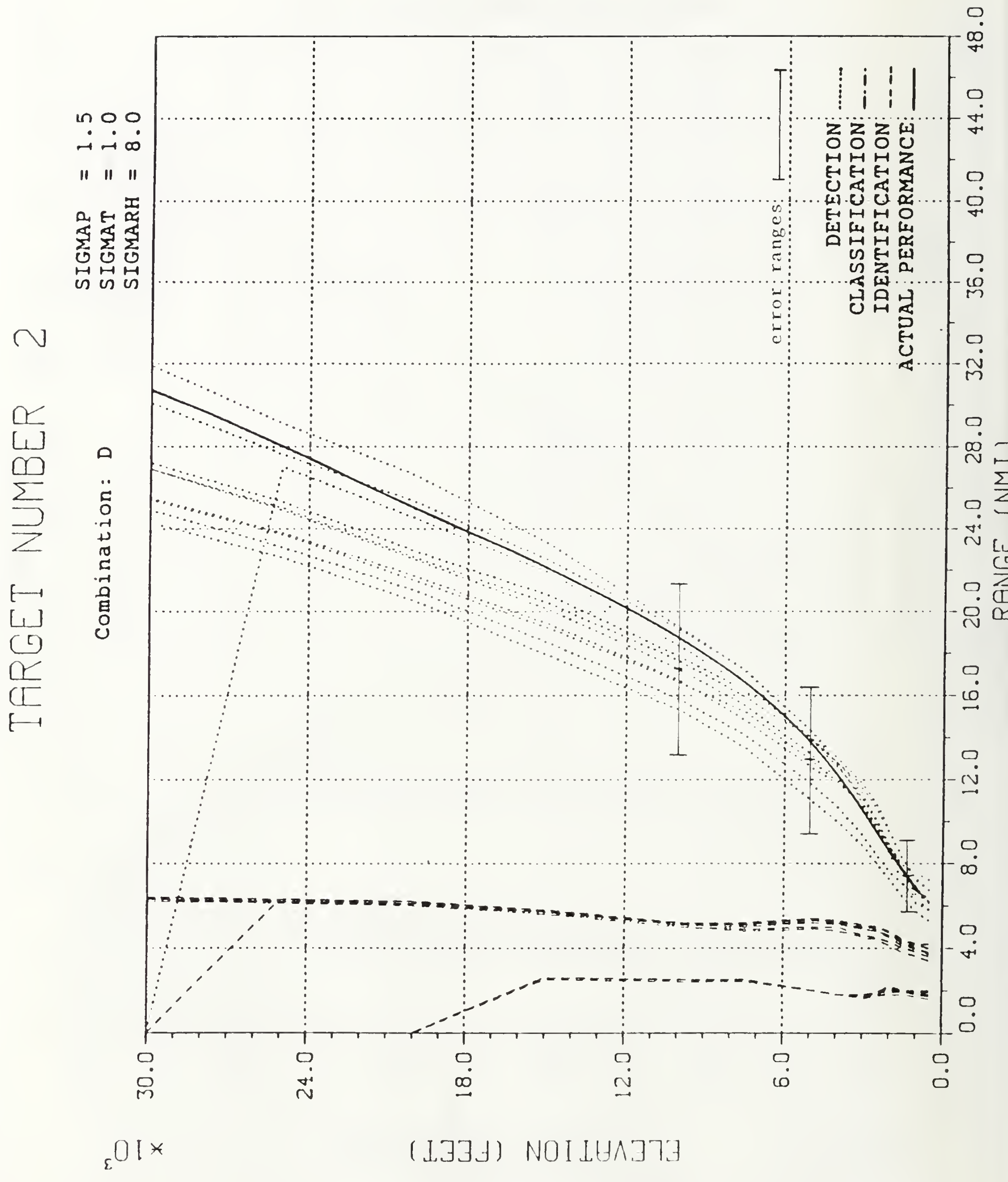




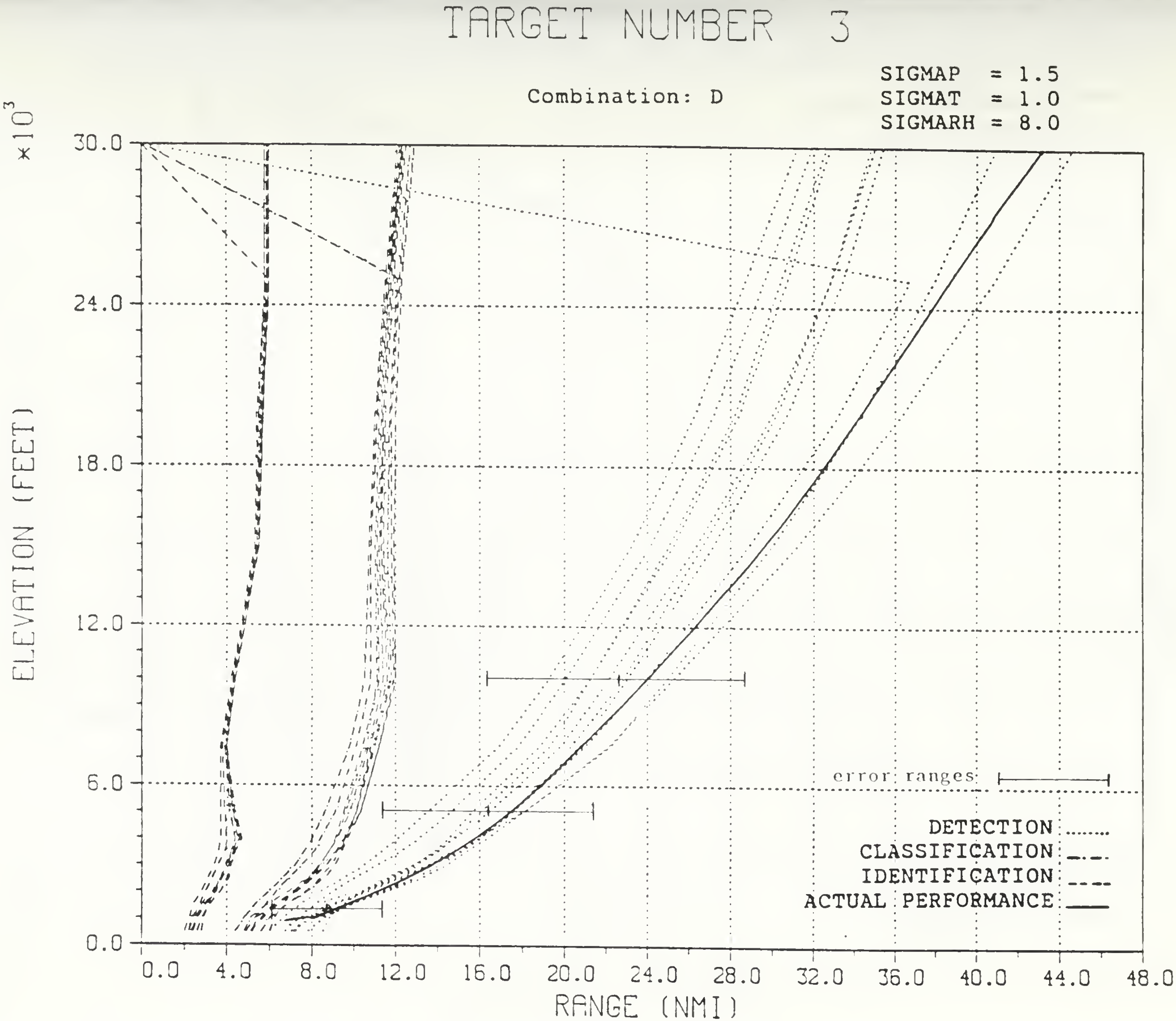
TARGET NUMBER 4
Combination: C
SIGMAP = 2.5
SIGMAT = 4.0
SIGMARH = 8.0
$\times 10^3$
ELEVATION (FEET)
30.0
24.0
18.0
12.0
6.0
0.0
RANGE (NMI)
0.0
4.0
8.0
12.0
16.0
20.0
24.0
28.0
32.0
36.0
40.0
44.0
48.0
error ranges
DETECTION
CLASSIFICATION
IDENTIFICATION
ACTUAL PERFORMANCE

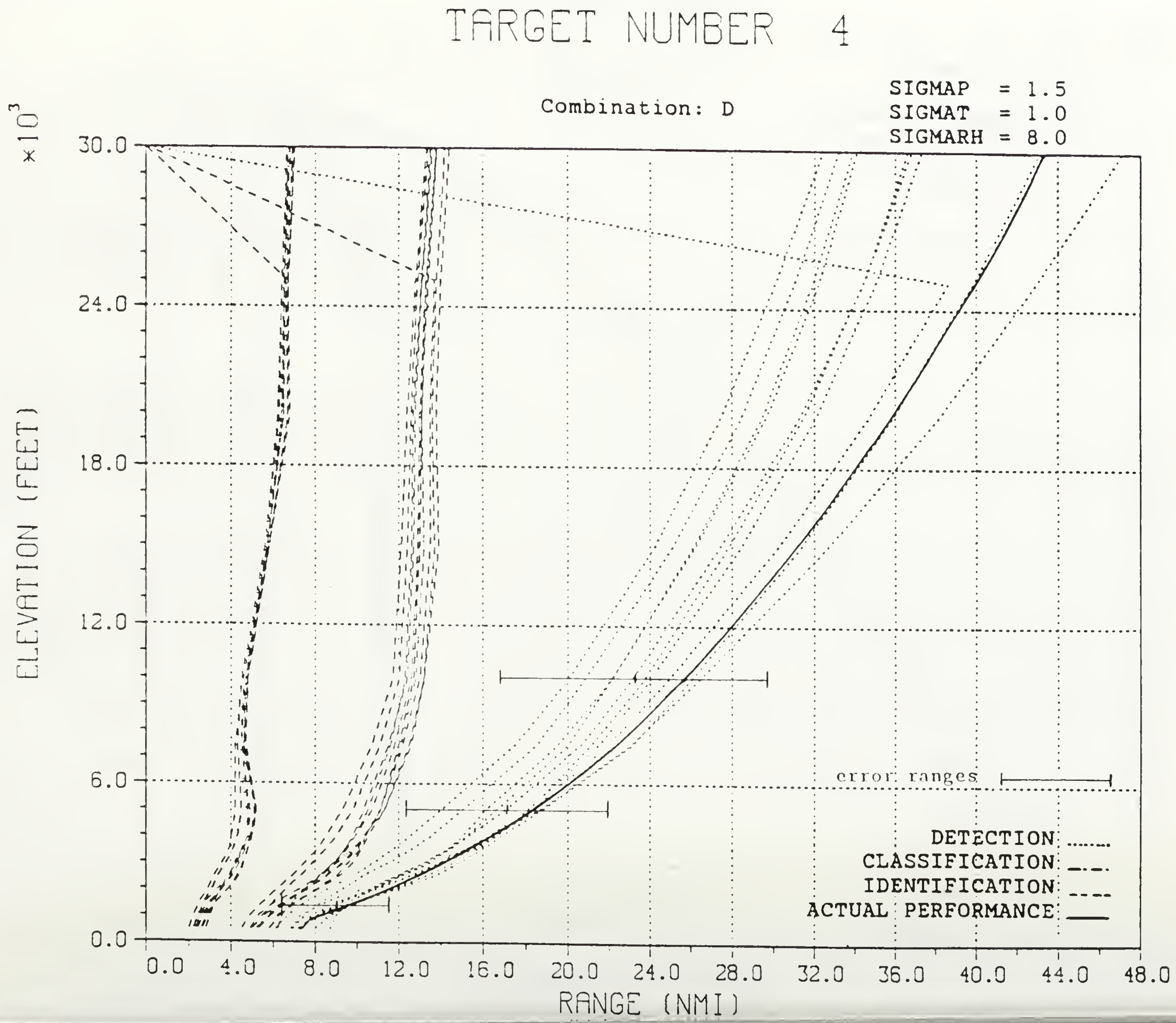


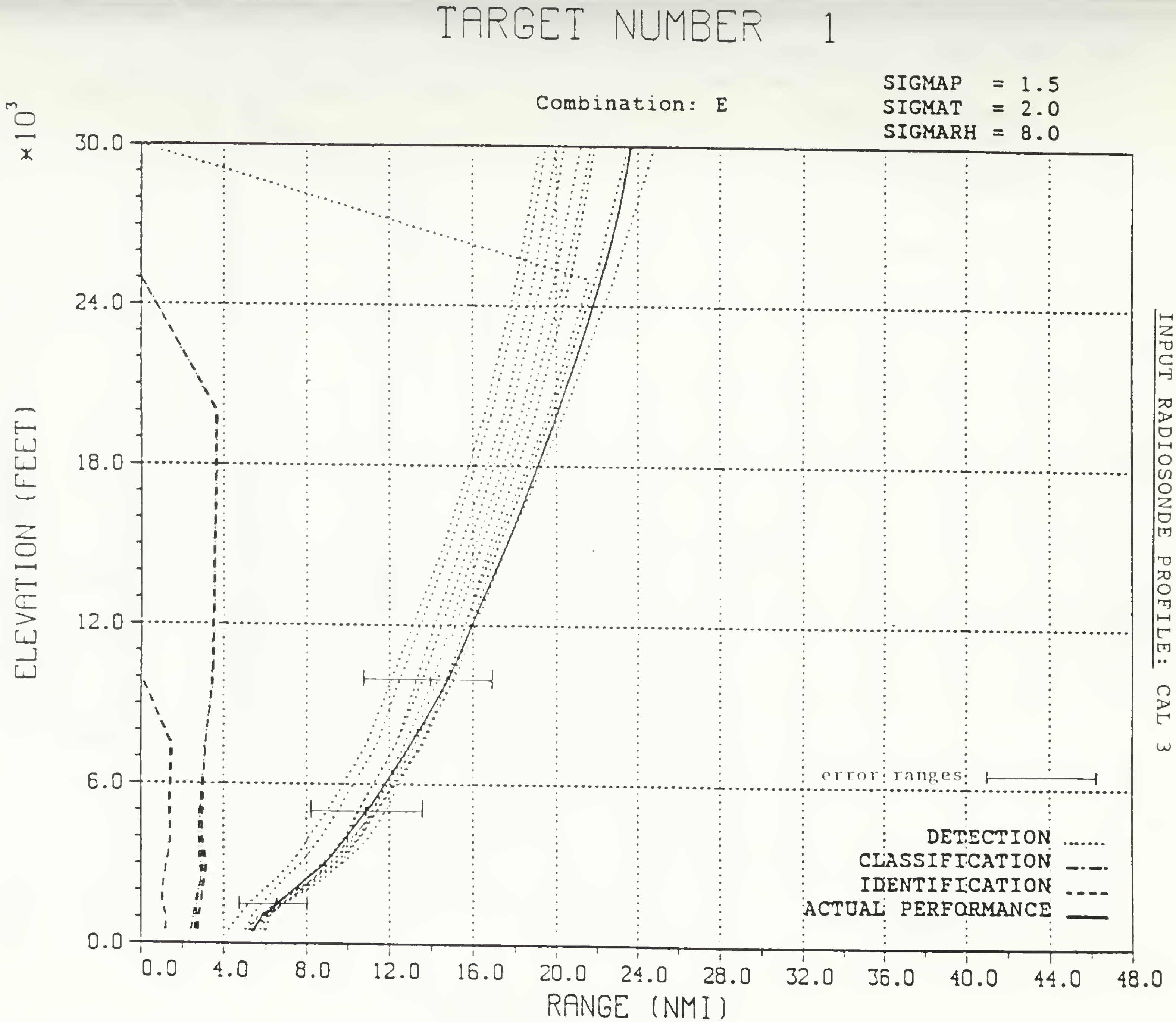
INPUT RADIOSONDE PROFILE: CAL 3
TARGET NUMBER 1
Combination: D
SIGMAP = 1.5
SIGMAT = 1.0
SIGMARH = 8.0
error ranges
DETECTION
CLASSIFICATION
IDENTIFICATION
ACTUAL PERFORMANCE
RANGE (NMI)
0.0
4.0
8.0
12.0
16.0
20.0
24.0
28.0
32.0
36.0
40.0
44.0
48.0
ELEVATION (FEET)
$\times 10^3$
0.0
6.0
12.0
18.0
24.0
30.0



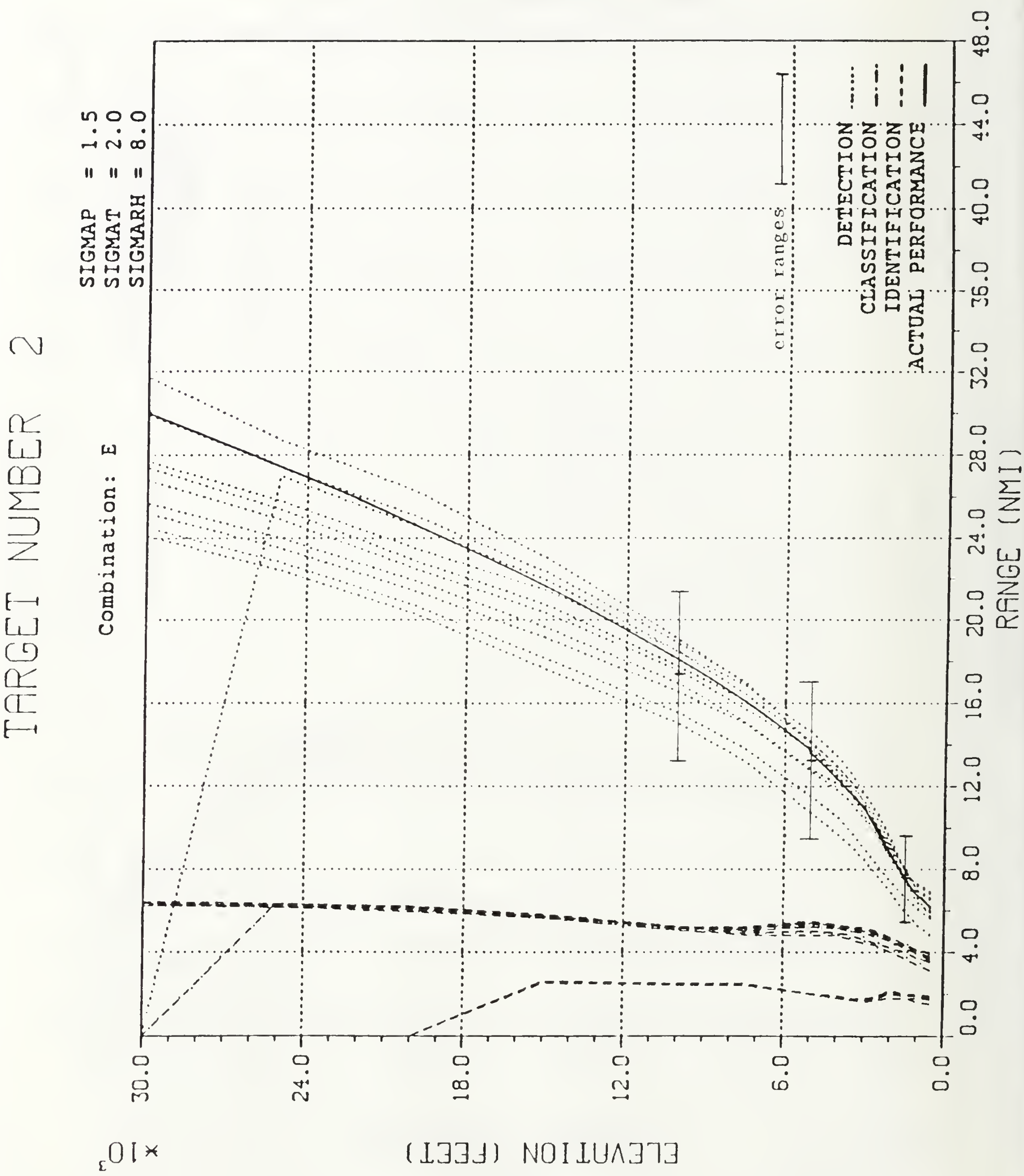
TARGET NUMBER 2
Combination: D
SIGMAP = 1.5
SIGMAT = 1.0
SIGMARH = 8.0
error ranges
DETECTION
CLASSIFICATION
IDENTIFICATION
ACTUAL PERFORMANCE
ELEVATION (FEET) x10^3
30.0
24.0
18.0
12.0
6.0
0.0
RANGE (NMI)
0.0
4.0
8.0
12.0
16.0
20.0
24.0
28.0
32.0
36.0
40.0
44.0
48.0


TARGET NUMBER 3
Combination: D
SIGMAP = 1.5
SIGMAT = 1.0
SIGMARH = 8.0
ELEVATION (FEET)
×10³
30.0
24.0
18.0
12.0
6.0
0.0
RANGE (NMI)
0.0
4.0
8.0
12.0
16.0
20.0
24.0
28.0
32.0
36.0
40.0
44.0
48.0
error ranges
DETECTION
CLASSIFICATION
IDENTIFICATION
ACTUAL PERFORMANCE

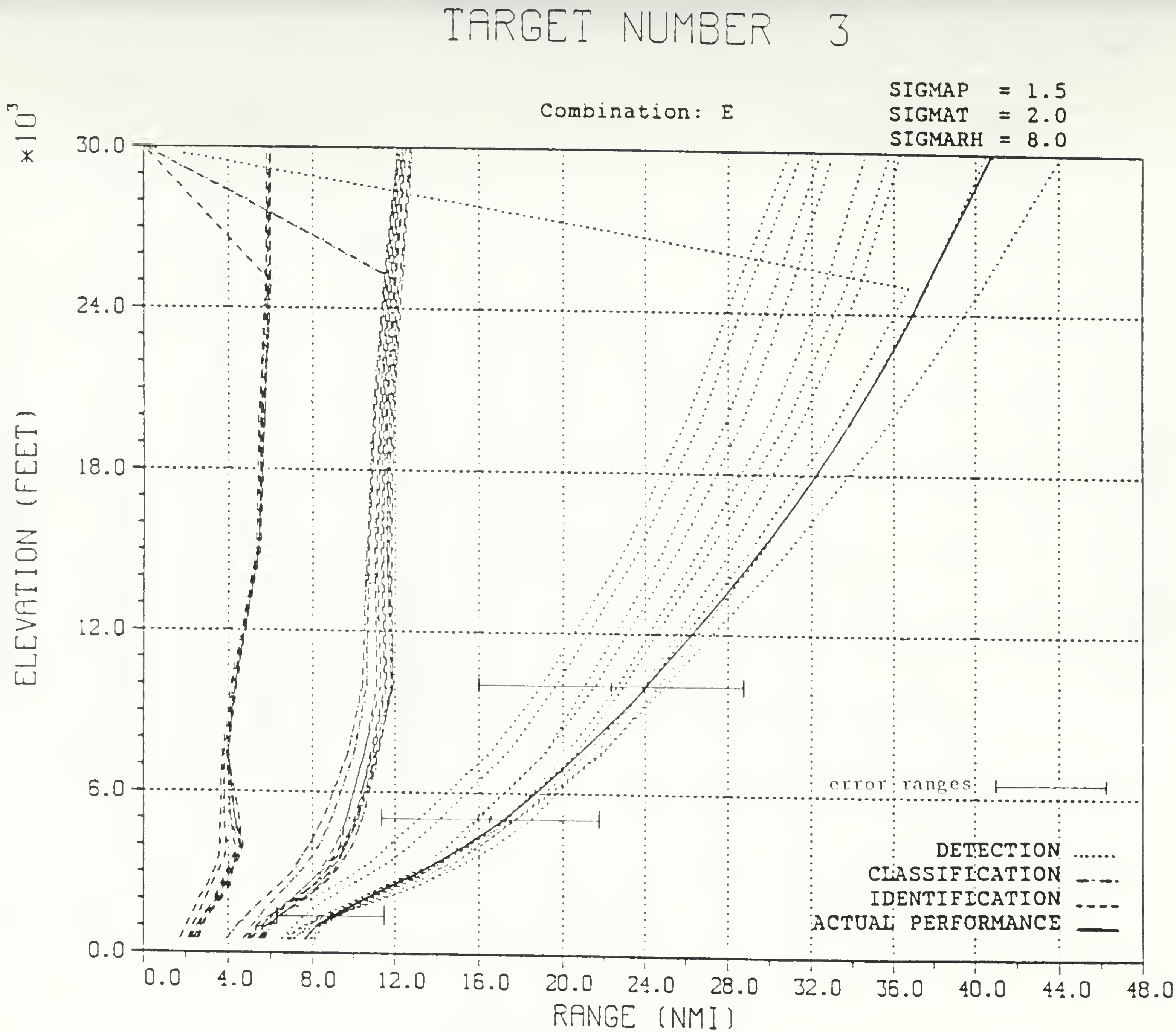

TARGET NUMBER 4
Combination: D
SIGMAP = 1.5
SIGMAT = 1.0
SIGMARH = 8.0
ELEVATION (FEET)
×10³
30.0
24.0
18.0
12.0
6.0
0.0
0.0
4.0
8.0
12.0
16.0
20.0
24.0
28.0
32.0
36.0
40.0
44.0
48.0
RANGE (NMI)
error ranges
DETECTION
CLASSIFICATION
IDENTIFICATION
ACTUAL PERFORMANCE



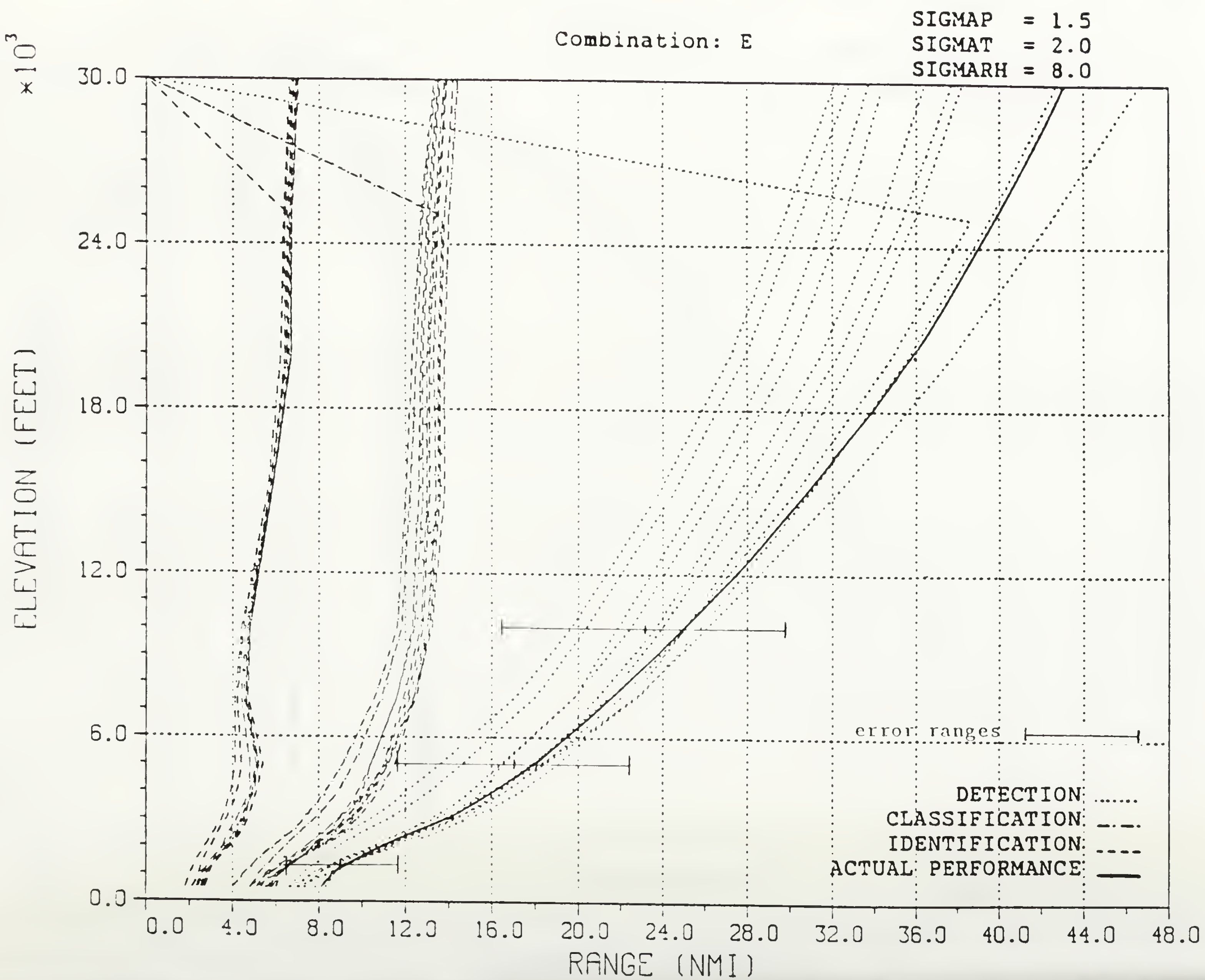
TARGET NUMBER 1
Combination: E
SIGMAP = 1.5
SIGMAT = 2.0
SIGMARH = 8.0
INPUT RADIOSONDE PROFILE: CAL 3
ELEVATION (FEET)
×10³
RANGE (NMI)
error ranges
DETECTION
CLASSIFICATION
IDENTIFICATION
ACTUAL PERFORMANCE

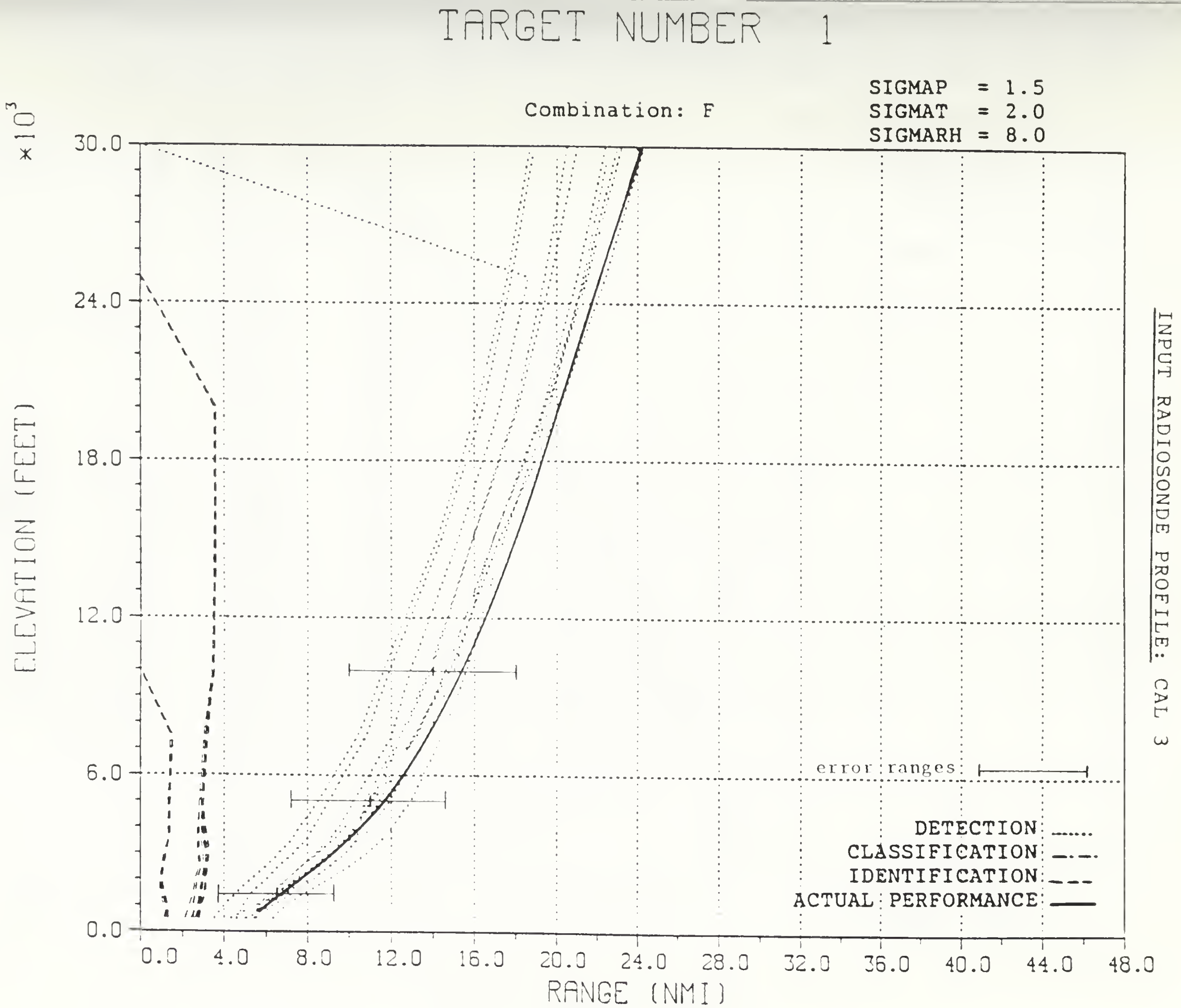


TARGET NUMBER 2
Combination: E
SIGMAP = 1.5
SIGMAT = 2.0
SIGMARH = 8.0
error ranges
DETECTION
CLASSIFICATION
IDENTIFICATION
ACTUAL PERFORMANCE
RANGE (NMI)
ELEVATION (FEET)
$\times 10^3$
0.0
4.0
8.0
12.0
16.0
20.0
24.0
28.0
32.0
36.0
40.0
44.0
48.0
0.0
6.0
12.0
18.0
24.0
30.0

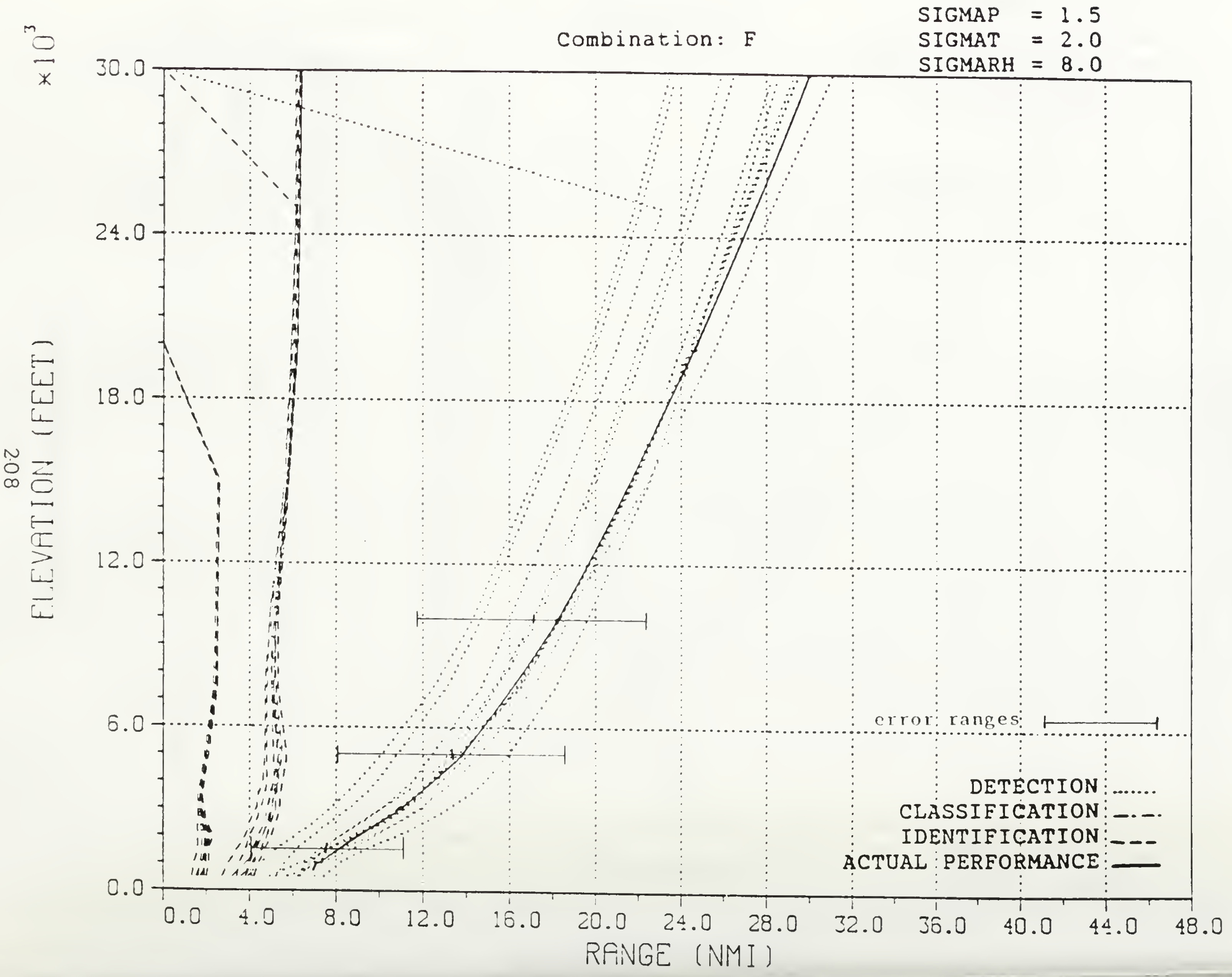

TARGET NUMBER 3
Combination: E
SIGMAP = 1.5
SIGMAT = 2.0
SIGMARH = 8.0
×10^3
ELEVATION (FEET)
30.0
24.0
18.0
12.0
6.0
0.0
RANGE (NMI)
0.0
4.0
8.0
12.0
16.0
20.0
24.0
28.0
32.0
36.0
40.0
44.0
48.0
error ranges
DETECTION
CLASSIFICATION
IDENTIFICATION
ACTUAL PERFORMANCE

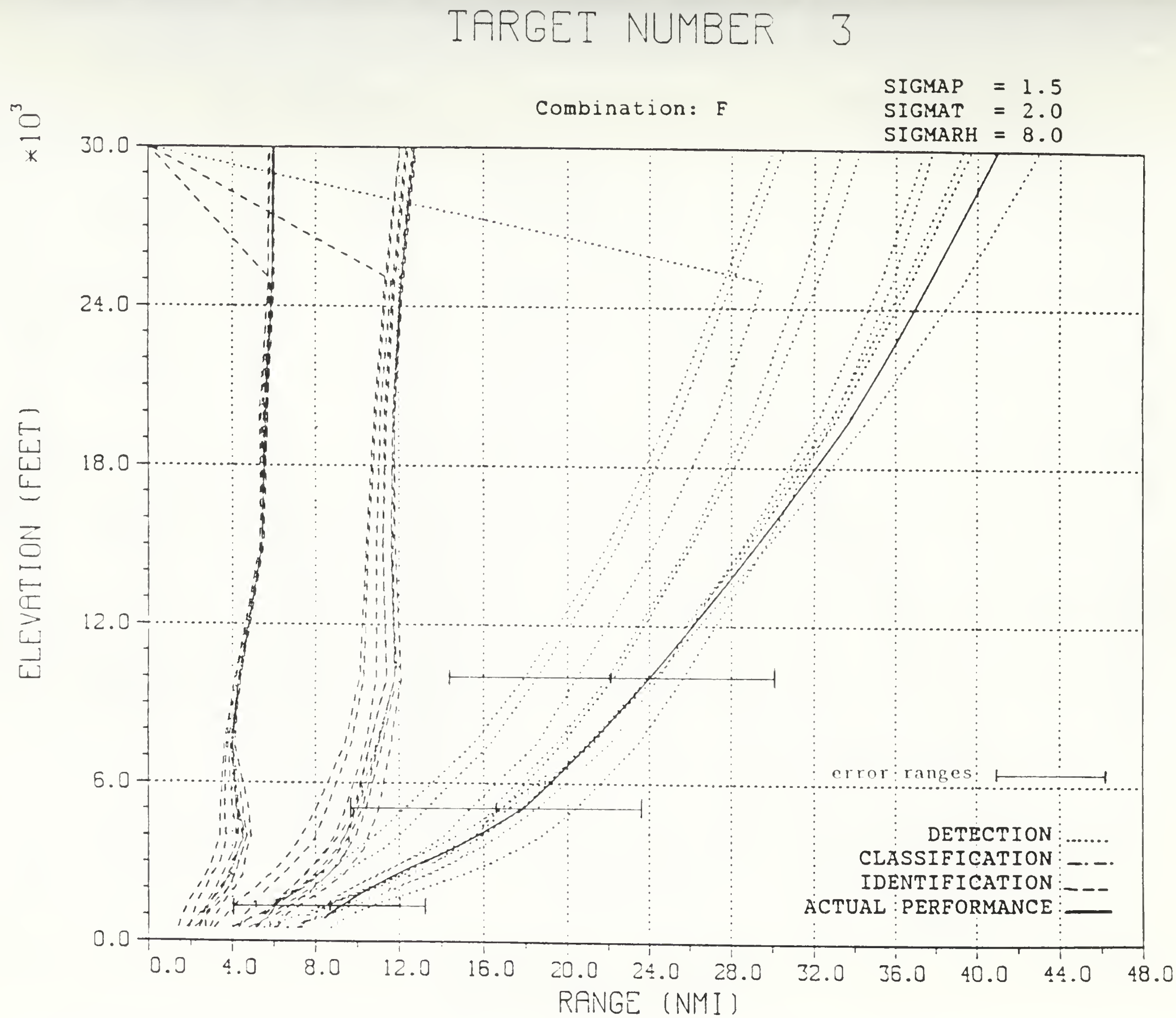
TARGET NUMBER 4

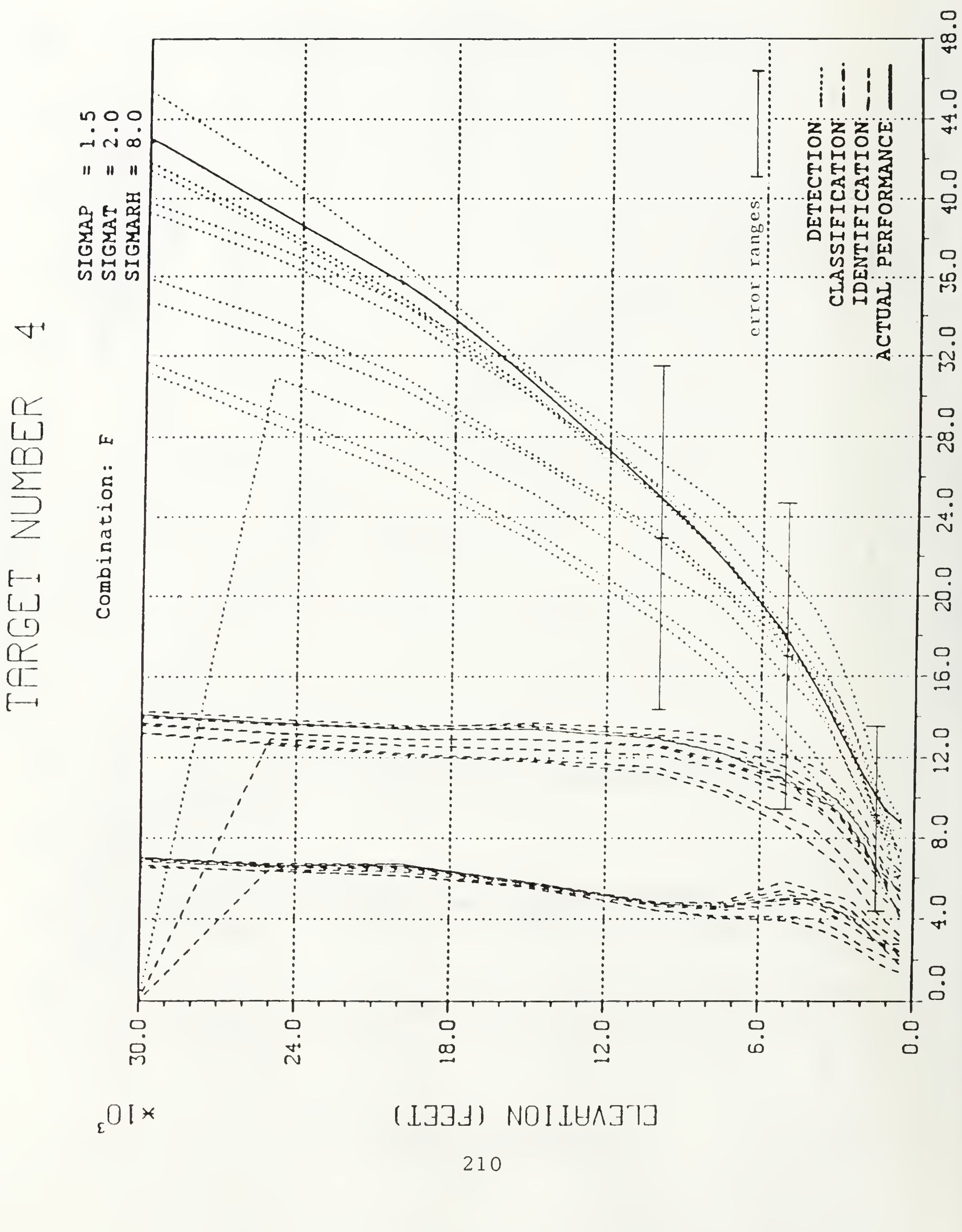


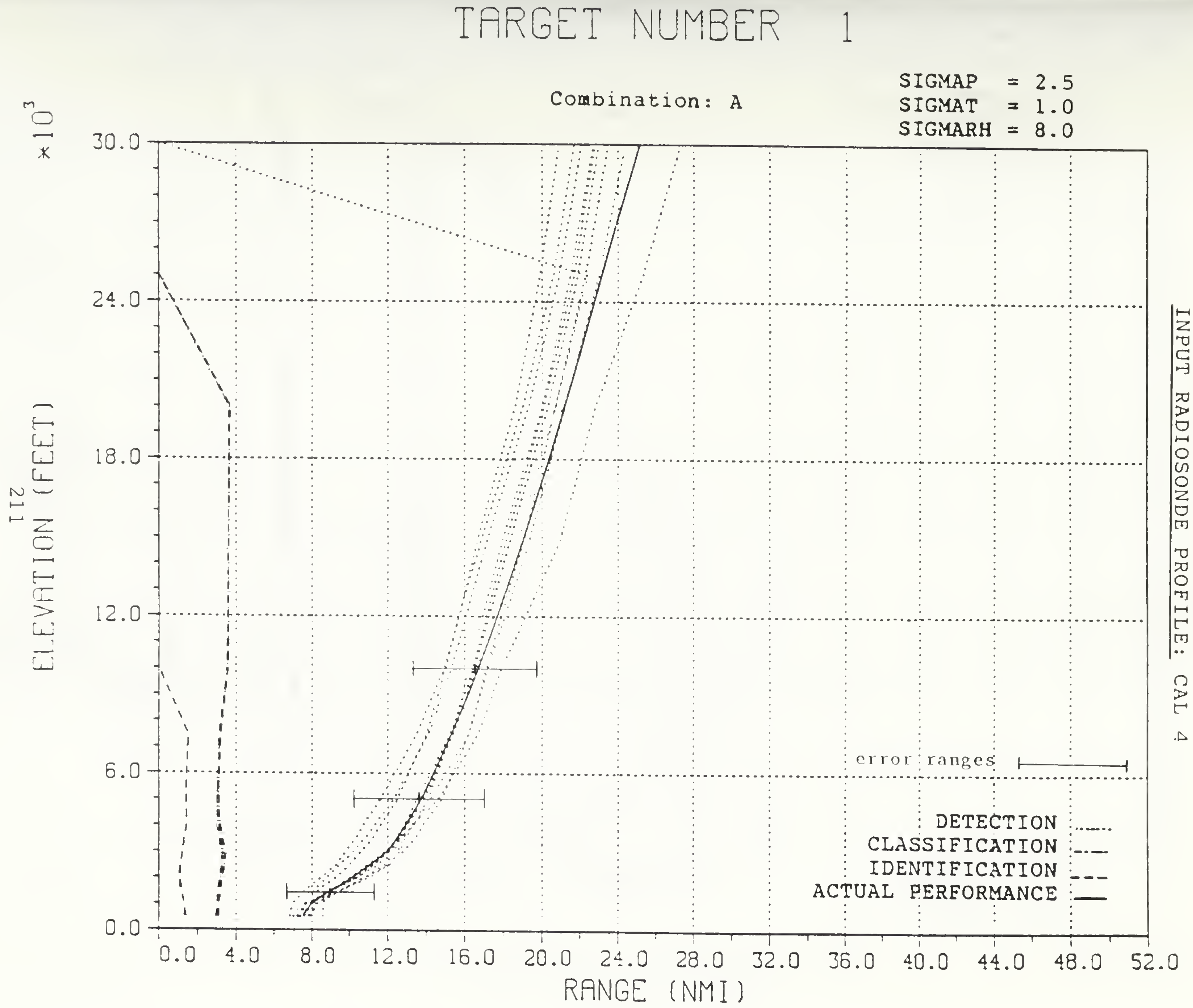

TARGET NUMBER 1
Combination: F
SIGMAP = 1.5
SIGMAT = 2.0
SIGMARH = 8.0
INPUT RADIOSONDE PROFILE: CAL 3
ELEVATION (FEET)
$\times 10^3$
30.0
24.0
18.0
12.0
6.0
0.0
RANGE (NMI)
0.0
4.0
8.0
12.0
16.0
20.0
24.0
28.0
32.0
36.0
40.0
44.0
48.0
error ranges
DETECTION
CLASSIFICATION
IDENTIFICATION
ACTUAL PERFORMANCE

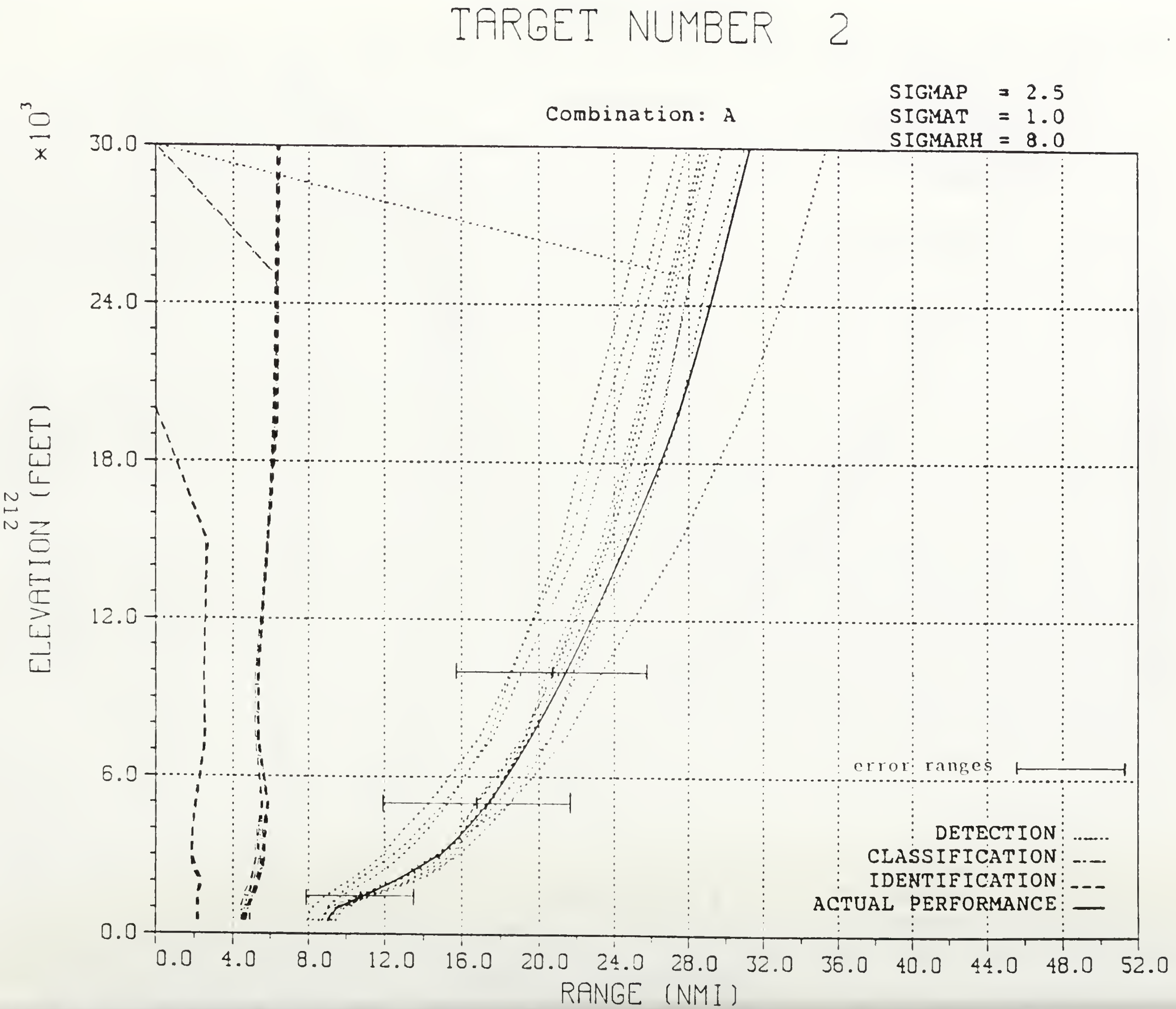
TARGET NUMBER 2

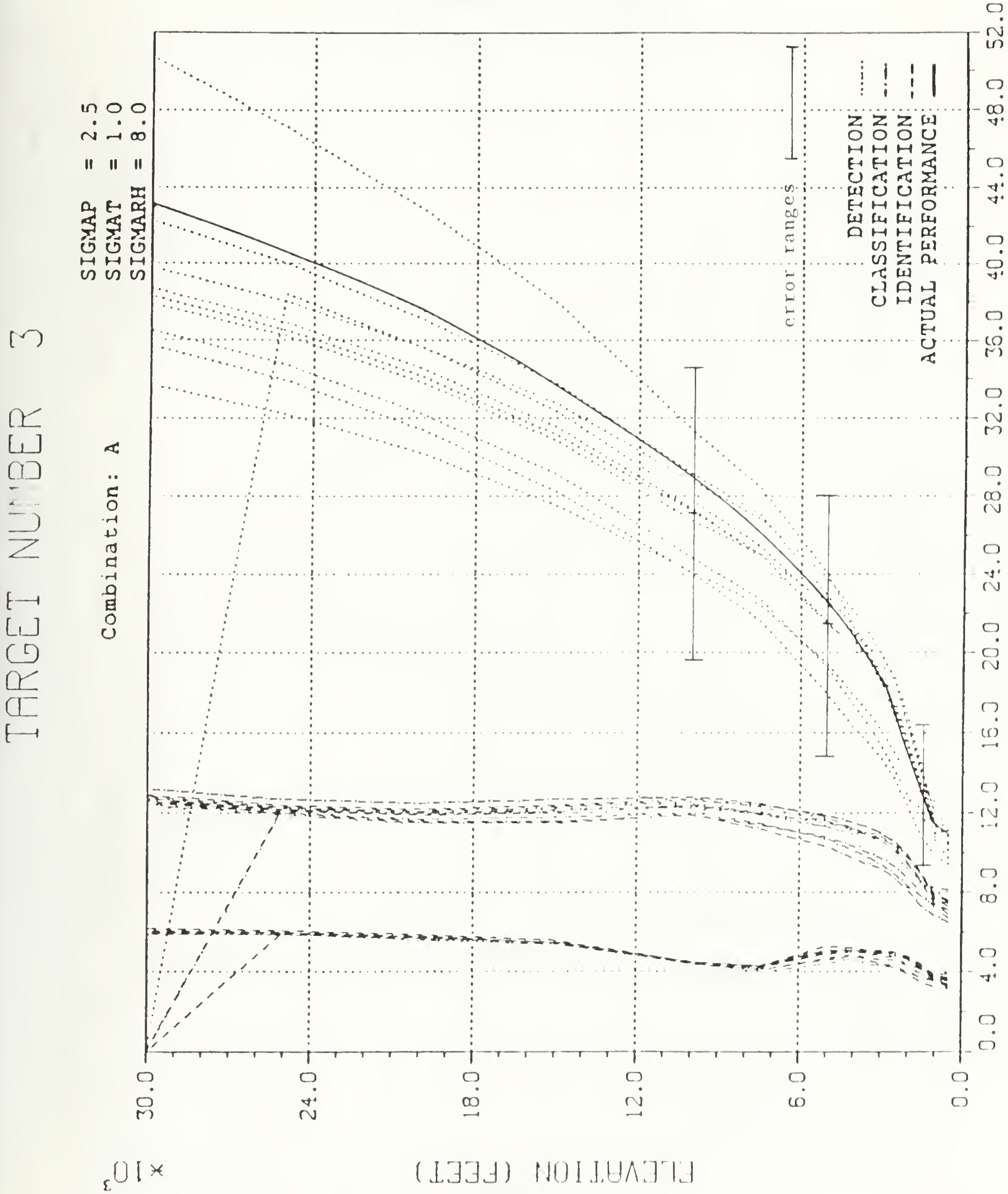


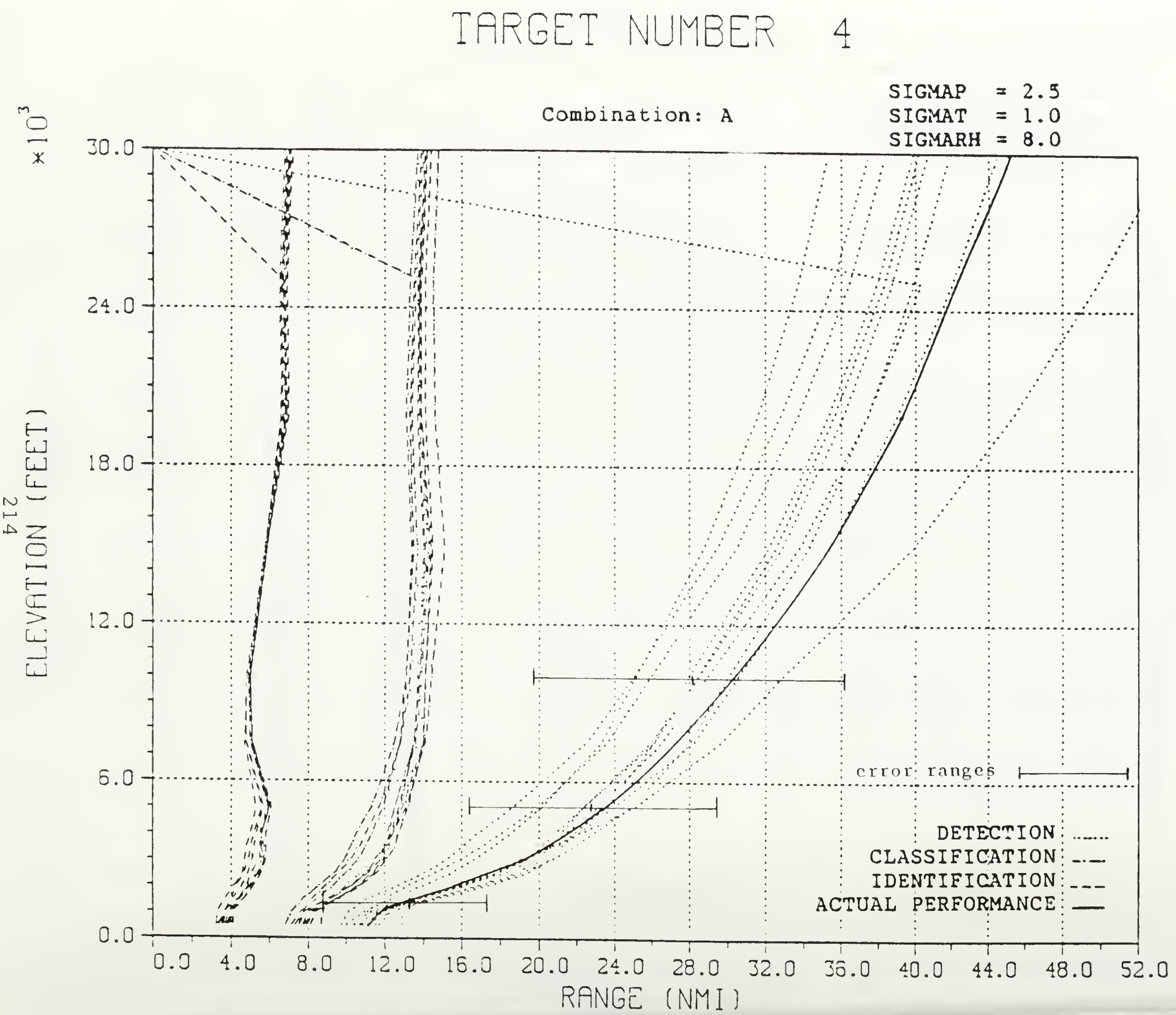

TARGET NUMBER 3
Combination: F
SIGMAP = 1.5
SIGMAT = 2.0
SIGMARH = 8.0
$*10^3$
ELEVATION (FEET)
30.0
24.0
18.0
12.0
6.0
0.0
RANGE (NMI)
0.0
4.0
8.0
12.0
16.0
20.0
24.0
28.0
32.0
36.0
40.0
44.0
48.0
error ranges
DETECTION
CLASSIFICATION
IDENTIFICATION
ACTUAL PERFORMANCE

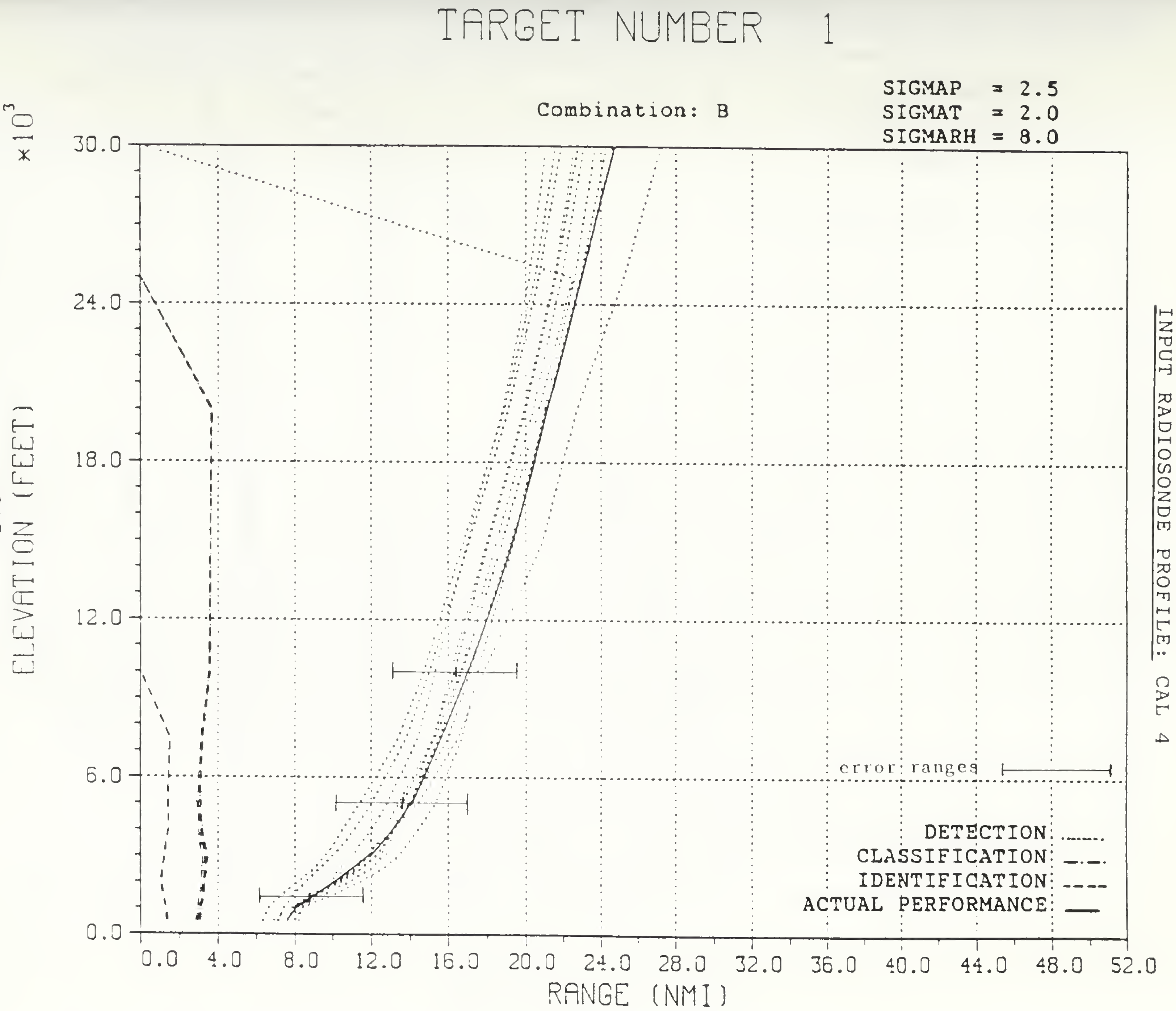

TARGET NUMBER 4
Combination: F
SIGMAP = 1.5
SIGMAT = 2.0
SIGMARH = 8.0
error ranges
DETECTION
CLASSIFICATION
IDENTIFICATION
ACTUAL PERFORMANCE
RANGE (NMI)
ELEVATION (FEET)
$\times 10^3$
0.0
4.0
8.0
12.0
16.0
20.0
24.0
28.0
32.0
36.0
40.0
44.0
48.0
0.0
6.0
12.0
18.0
24.0
30.0


TARGET NUMBER 1
Combination: A
SIGMAP = 2.5
SIGMAT = 1.0
SIGMARH = 8.0
INPUT RADIOSONDE PROFILE: CAL 4
ELEVATION (FEET)
$\times 10^3$
30.0
24.0
18.0
12.0
6.0
0.0
RANGE (NMI)
0.0
4.0
8.0
12.0
16.0
20.0
24.0
28.0
32.0
36.0
40.0
44.0
48.0
52.0
error ranges
DETECTION
CLASSIFICATION
IDENTIFICATION
ACTUAL PERFORMANCE

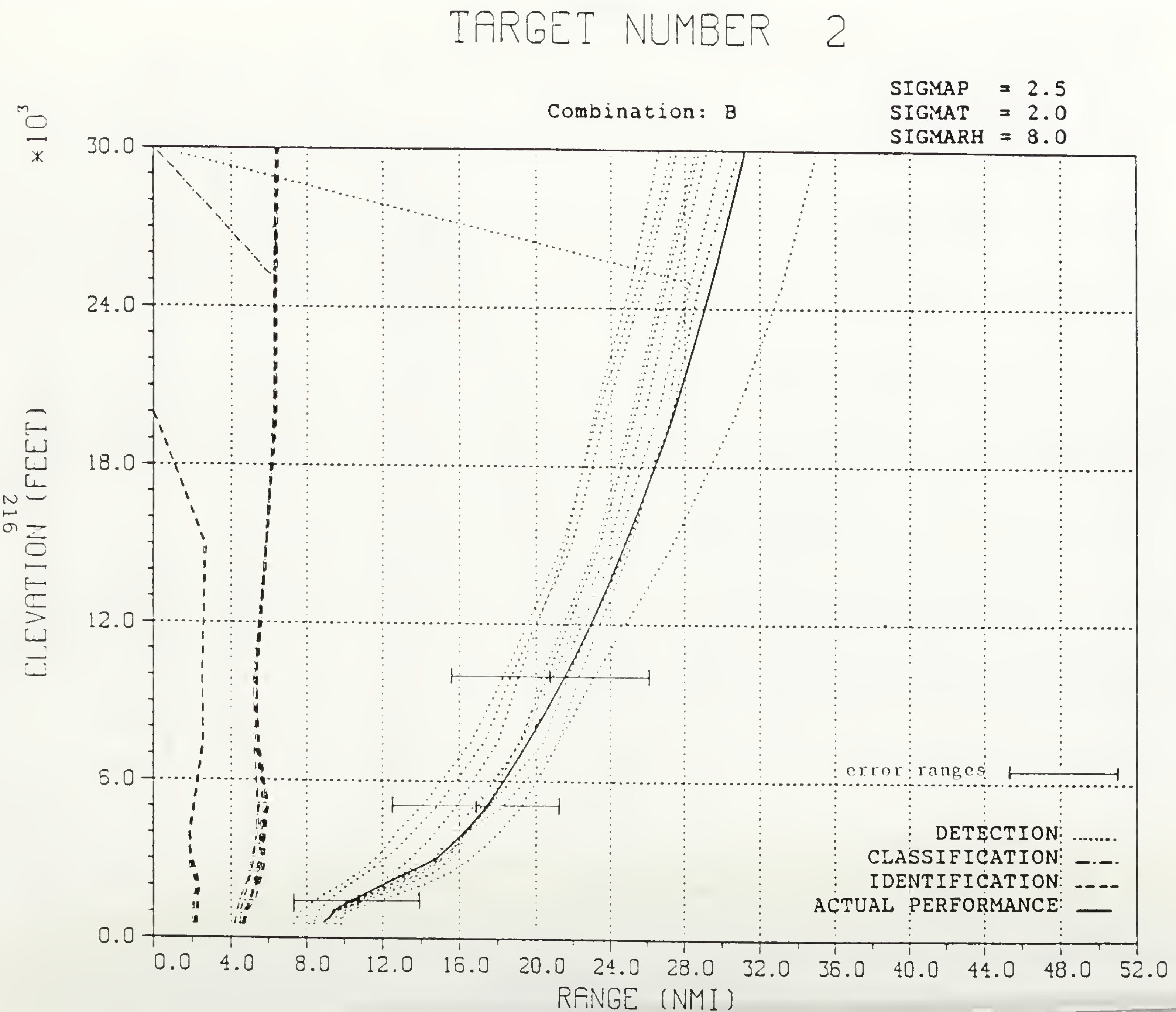

TARGET NUMBER 2
Combination: A
SIGMAP = 2.5
SIGMAT = 1.0
SIGMARH = 8.0
ELEVATION (FEET)
×10³
30.0
24.0
18.0
12.0
6.0
0.0
0.0
4.0
8.0
12.0
16.0
20.0
24.0
28.0
32.0
36.0
40.0
44.0
48.0
52.0
RANGE (NMI)
error ranges
DETECTION
CLASSIFICATION
IDENTIFICATION
ACTUAL PERFORMANCE


TARGET NUMBER 3
Combination: A
SIGMAP = 2.5
SIGMAT = 1.0
SIGMARH = 8.0
error ranges
DETECTION
CLASSIFICATION
IDENTIFICATION
ACTUAL PERFORMANCE
RANGE (NMI)
ELEVATION (FEET)
x10³
0.0
4.0
8.0
12.0
16.0
20.0
24.0
28.0
32.0
36.0
40.0
44.0
48.0
52.0
6.0
12.0
18.0
24.0
30.0

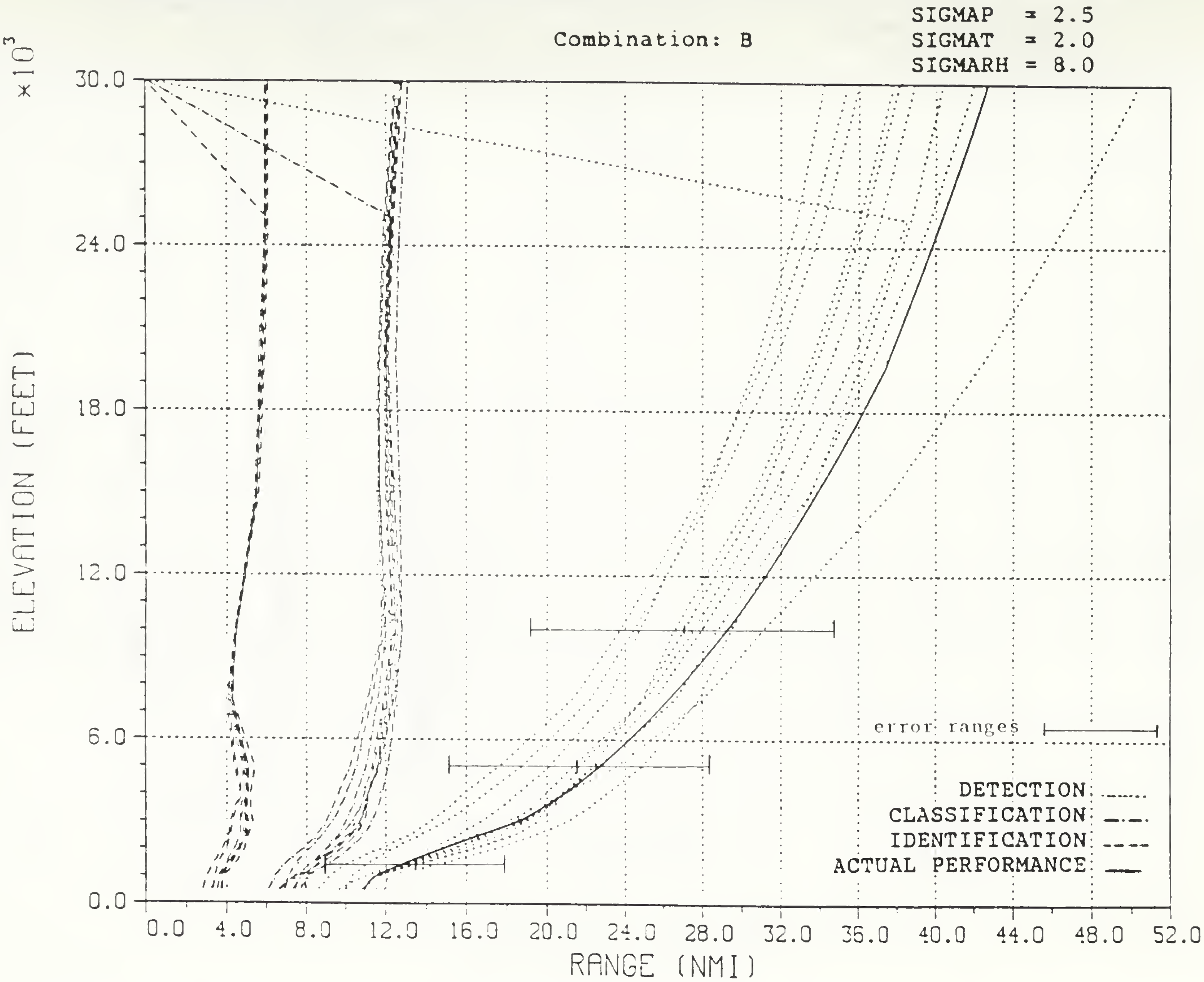

TARGET NUMBER 4
Combination: A
SIGMAP = 2.5
SIGMAT = 1.0
SIGMARH = 8.0
ELEVATION (FEET)
×10³
30.0
24.0
18.0
12.0
6.0
0.0
RANGE (NMI)
0.0
4.0
8.0
12.0
16.0
20.0
24.0
28.0
32.0
36.0
40.0
44.0
48.0
52.0
error ranges
DETECTION
CLASSIFICATION
IDENTIFICATION
ACTUAL PERFORMANCE

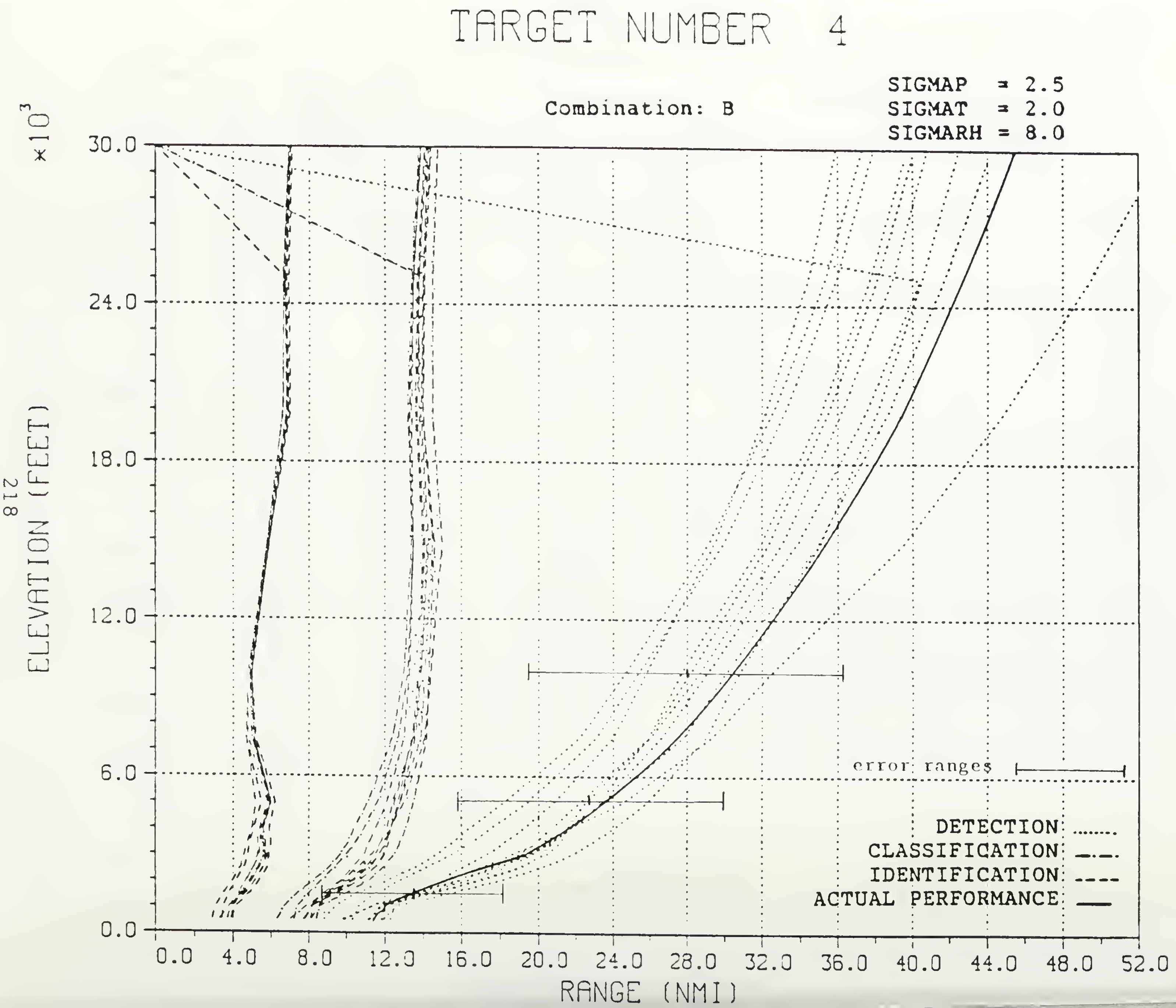


TARGET NUMBER 1
Combination: B
SIGMAP = 2.5
SIGMAT = 2.0
SIGMARH = 8.0
INPUT RADIOSONDE PROFILE: CAL 4
ELEVATION (FEET)
×10^3
30.0
24.0
18.0
12.0
6.0
0.0
RANGE (NMI)
0.0
4.0
8.0
12.0
16.0
20.0
24.0
28.0
32.0
36.0
40.0
44.0
48.0
52.0
error ranges
DETECTION
CLASSIFICATION
IDENTIFICATION
ACTUAL PERFORMANCE


TARGET NUMBER 2
Combination: B
SIGMAP = 2.5
SIGMAT = 2.0
SIGMARH = 8.0
ELEVATION (FEET)
$\times 10^3$
RANGE (NMI)
error ranges
DETECTION
CLASSIFICATION
IDENTIFICATION
ACTUAL PERFORMANCE
0.0
6.0
12.0
18.0
24.0
30.0
0.0
4.0
8.0
12.0
16.0
20.0
24.0
28.0
32.0
36.0
40.0
44.0
48.0
52.0

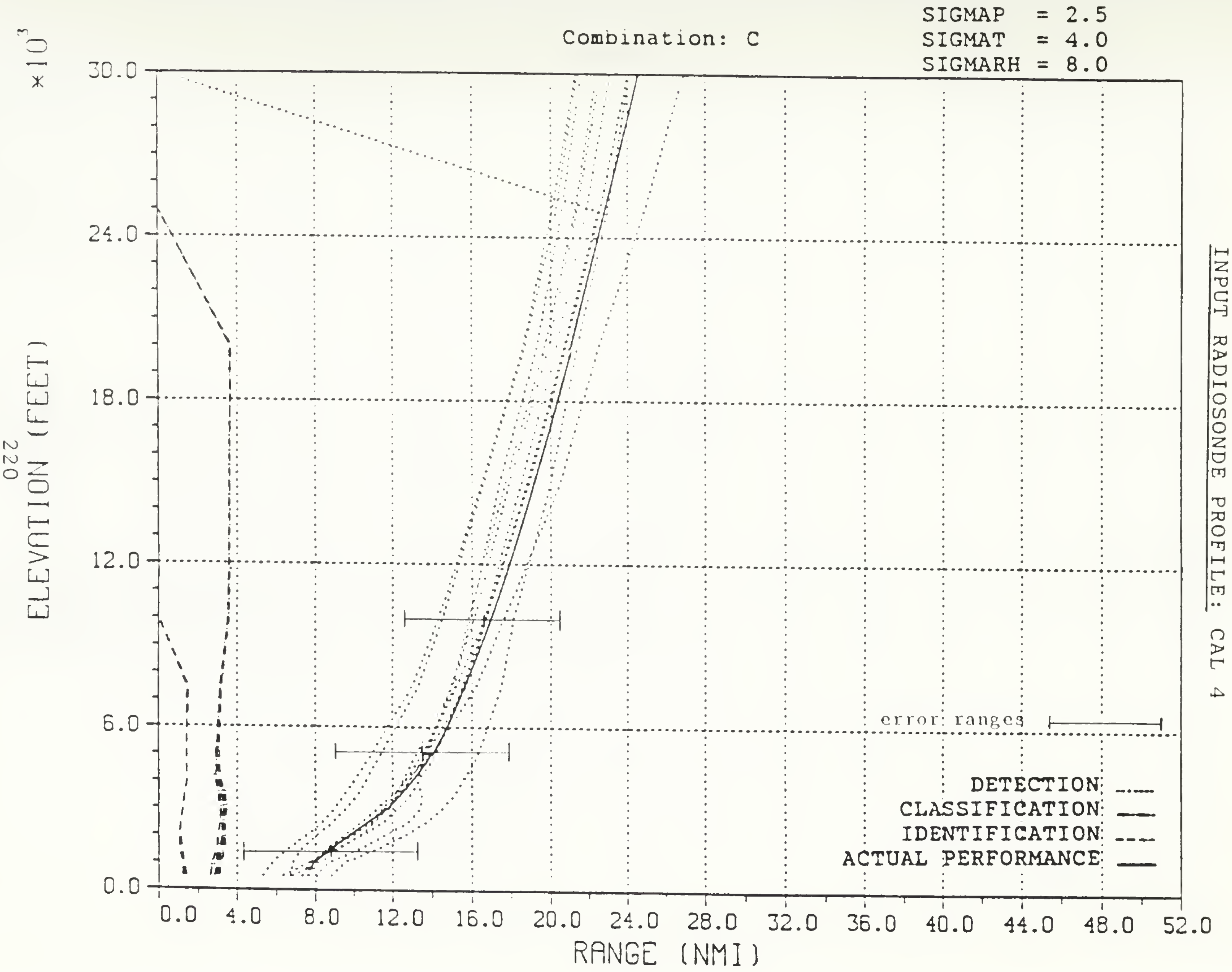
TARGET NUMBER 3

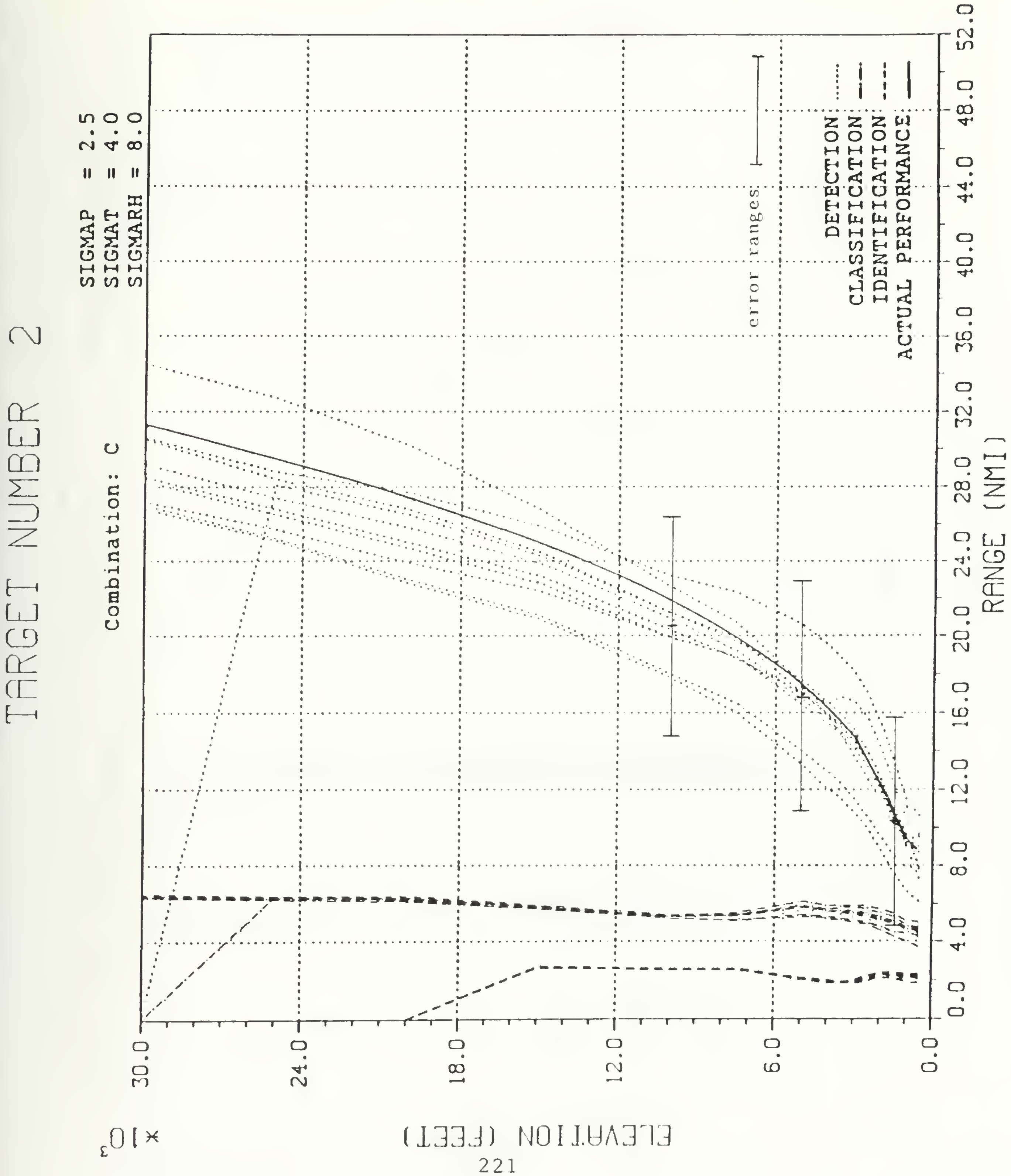




TARGET NUMBER 4
Combination: B
SIGMAP = 2.5
SIGMAT = 2.0
SIGMARH = 8.0
ELEVATION (FEET) $\times 10^3$
30.0
24.0
18.0
12.0
6.0
0.0
RANGE (NMI)
0.0
4.0
8.0
12.0
16.0
20.0
24.0
28.0
32.0
36.0
40.0
44.0
48.0
52.0
error ranges
DETECTION
CLASSIFICATION
IDENTIFICATION
ACTUAL PERFORMANCE

TARGET NUMBER 1

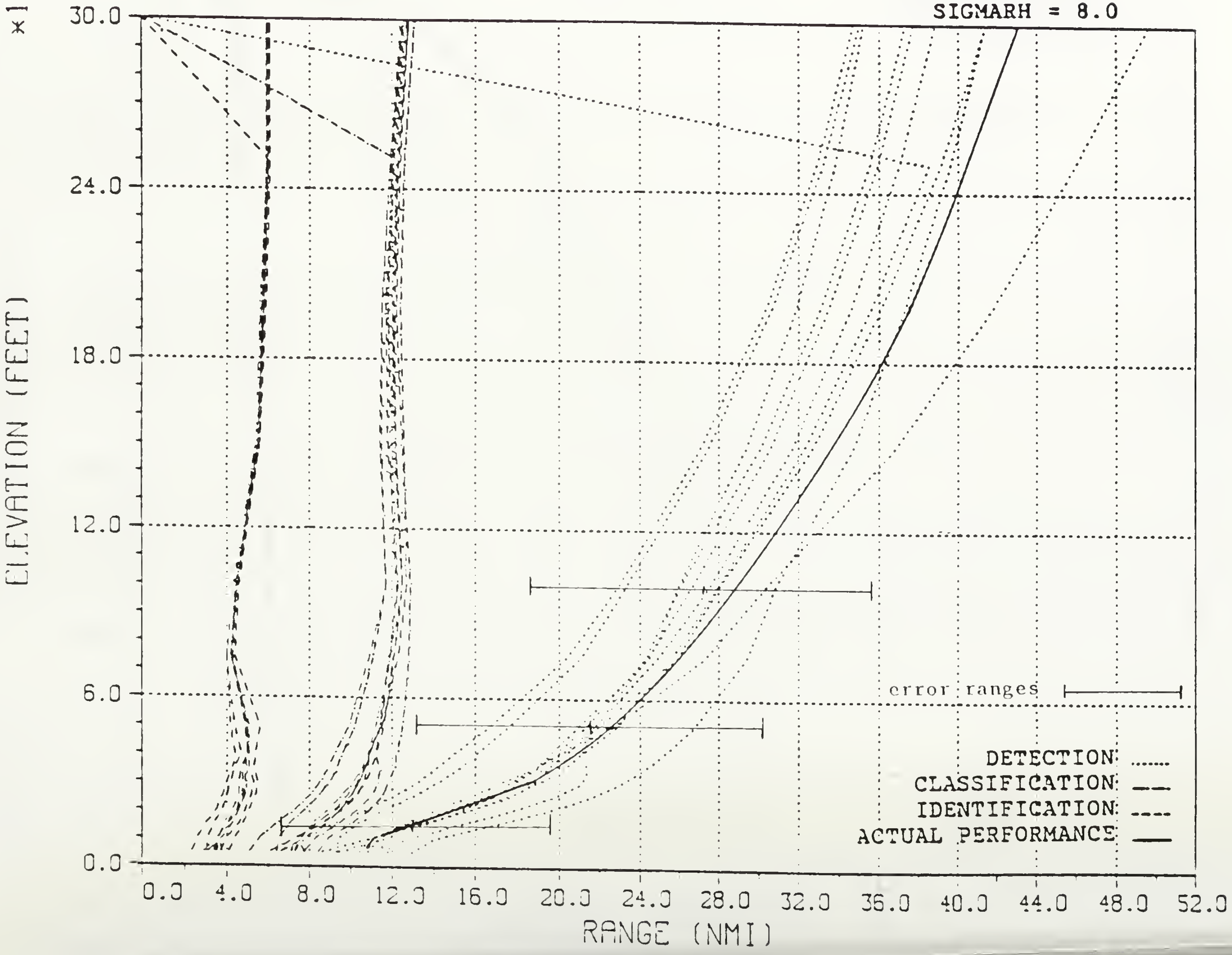


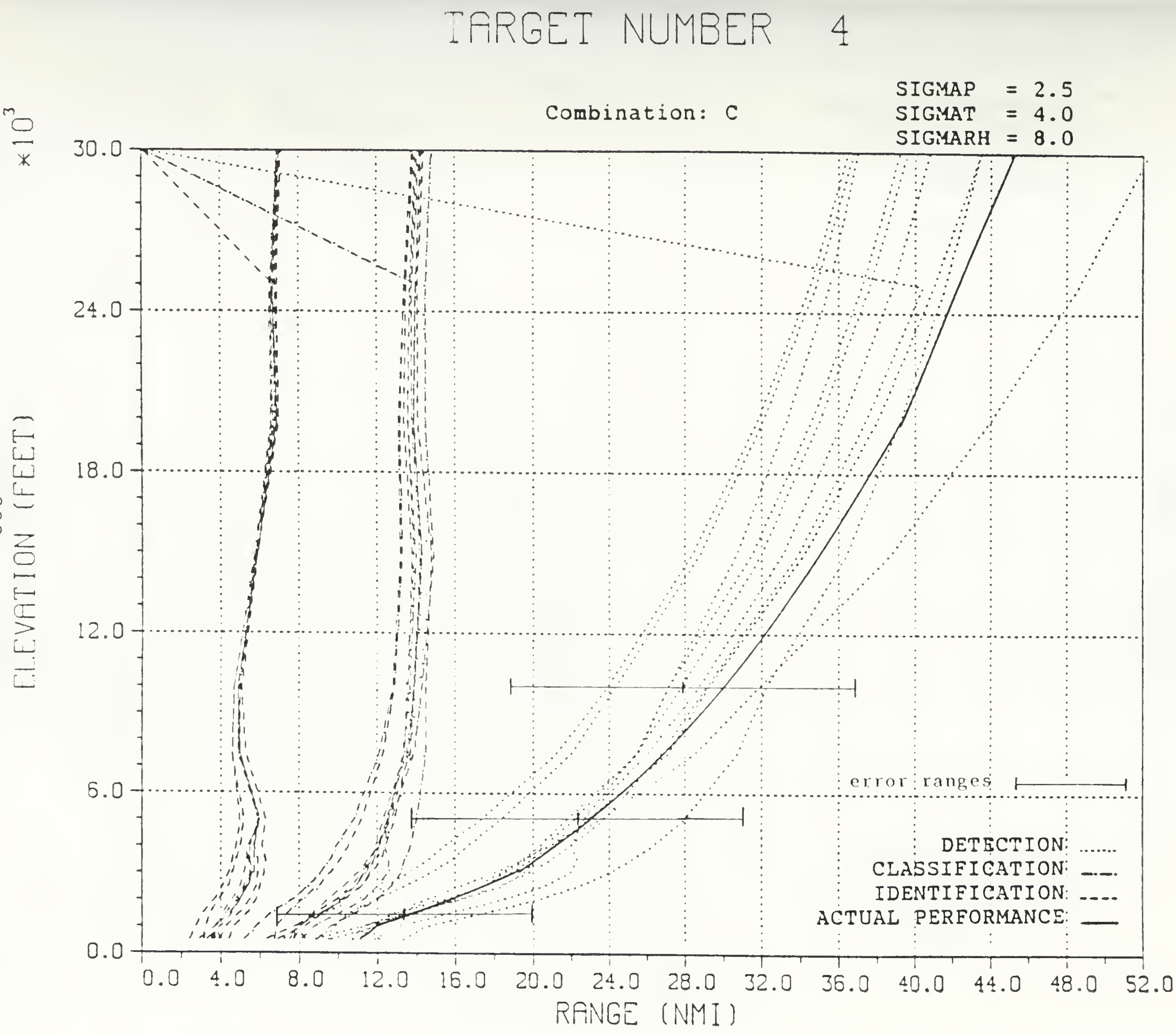

TARGET NUMBER 2
Combination: C
SIGMAP = 2.5
SIGMAT = 4.0
SIGMARH = 8.0
error ranges
DETECTION
CLASSIFICATION
IDENTIFICATION
ACTUAL PERFORMANCE
RANGE (NMI)
0.0 4.0 8.0 12.0 16.0 20.0 24.0 28.0 32.0 36.0 40.0 44.0 48.0 52.0
ELEVATION (FEET)
×10³
0.0 6.0 12.0 18.0 24.0 30.0

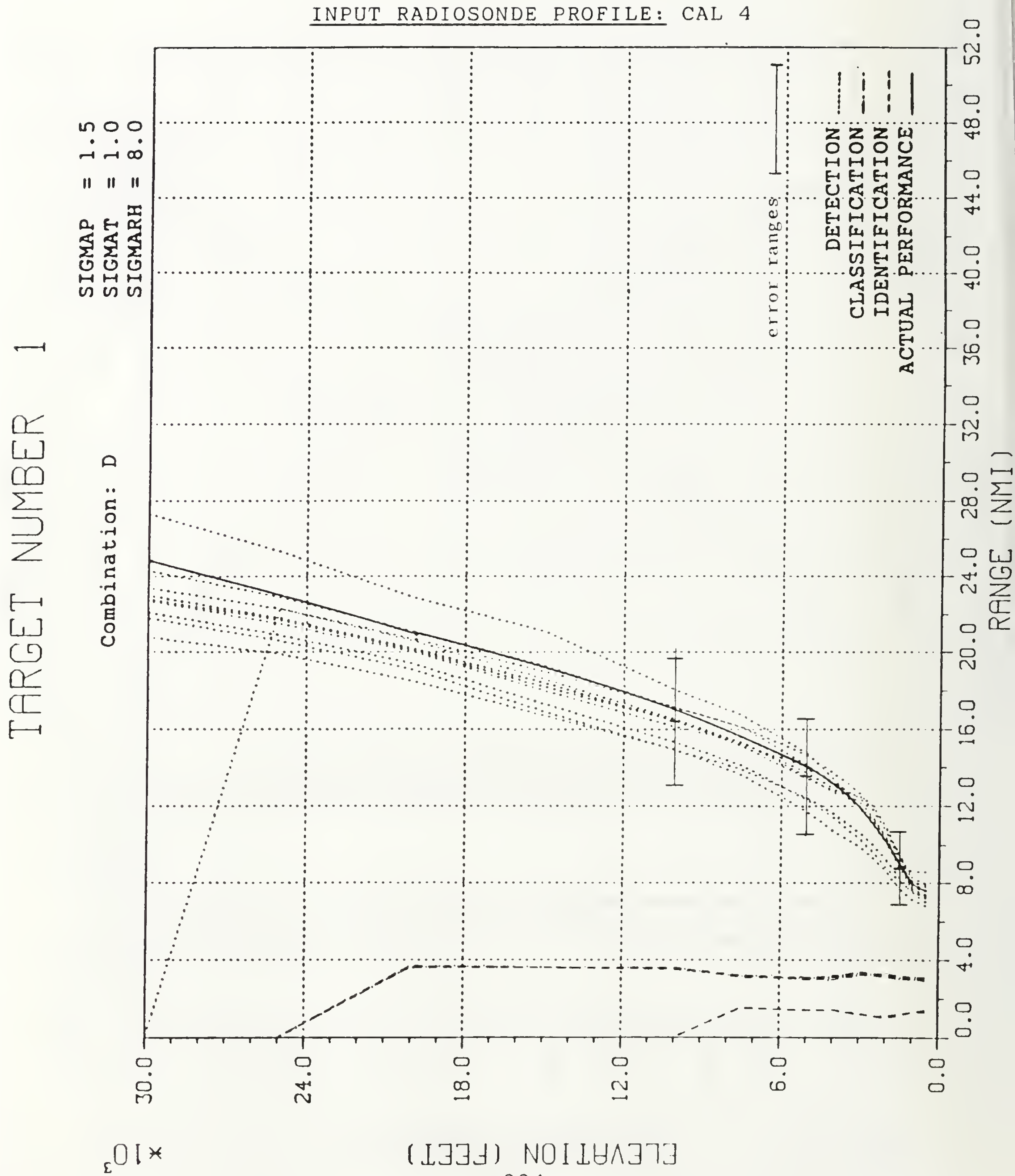
TARGET NUMBER 3

Combination: C

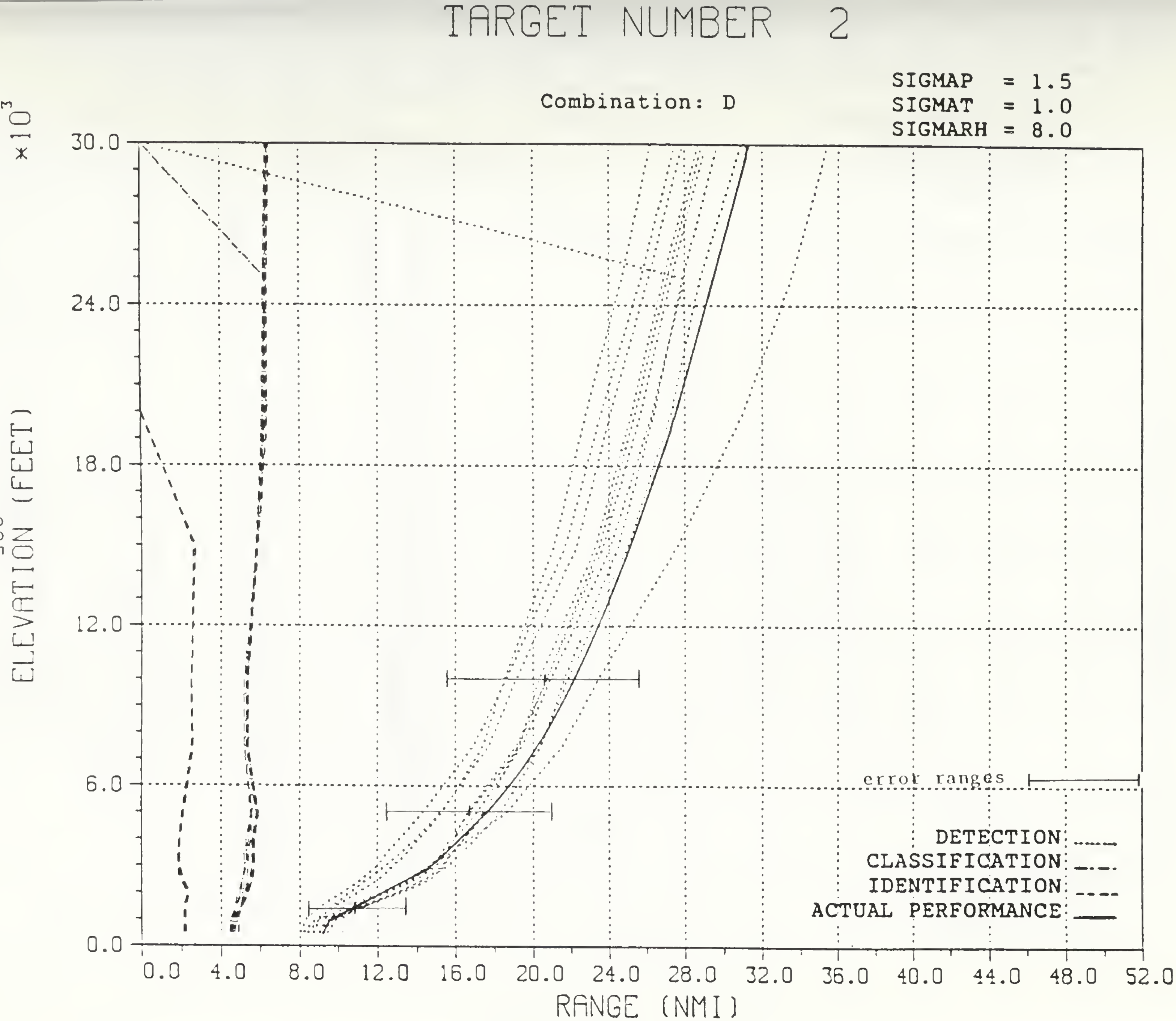
SIGMAP = 2.5
SIGMAT = 4.0
SIGMARH = 8.0



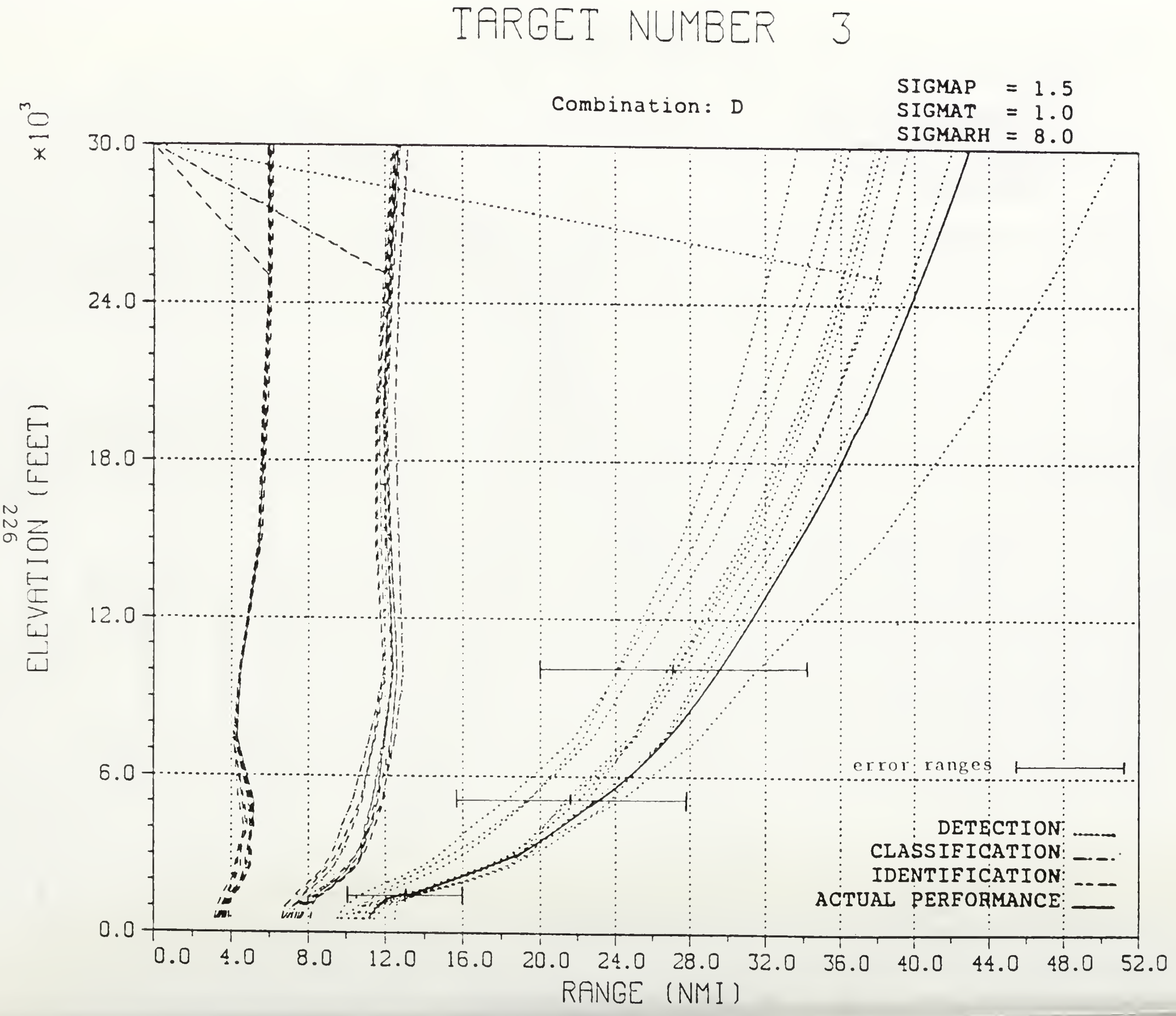

TARGET NUMBER 4
Combination: C
SIGMAP = 2.5
SIGMAT = 4.0
SIGMARH = 8.0
$\times 10^3$
ELEVATION (FEET)
30.0
24.0
18.0
12.0
6.0
0.0
0.0 4.0 8.0 12.0 16.0 20.0 24.0 28.0 32.0 36.0 40.0 44.0 48.0 52.0
RANGE (NMI)
error ranges
DETECTION
CLASSIFICATION
IDENTIFICATION
ACTUAL PERFORMANCE



TARGET NUMBER 1
Combination: D
SIGMAP = 1.5
SIGMAT = 1.0
SIGMARH = 8.0
INPUT RADIOSONDE PROFILE: CAL 4
error ranges
DETECTION
CLASSIFICATION
IDENTIFICATION
ACTUAL PERFORMANCE
0.0
4.0
8.0
12.0
16.0
20.0
24.0
28.0
32.0
36.0
40.0
44.0
48.0
52.0
RANGE (NMI)
30.0
24.0
18.0
12.0
6.0
0.0
ELEVATION (FEET)
x10^3

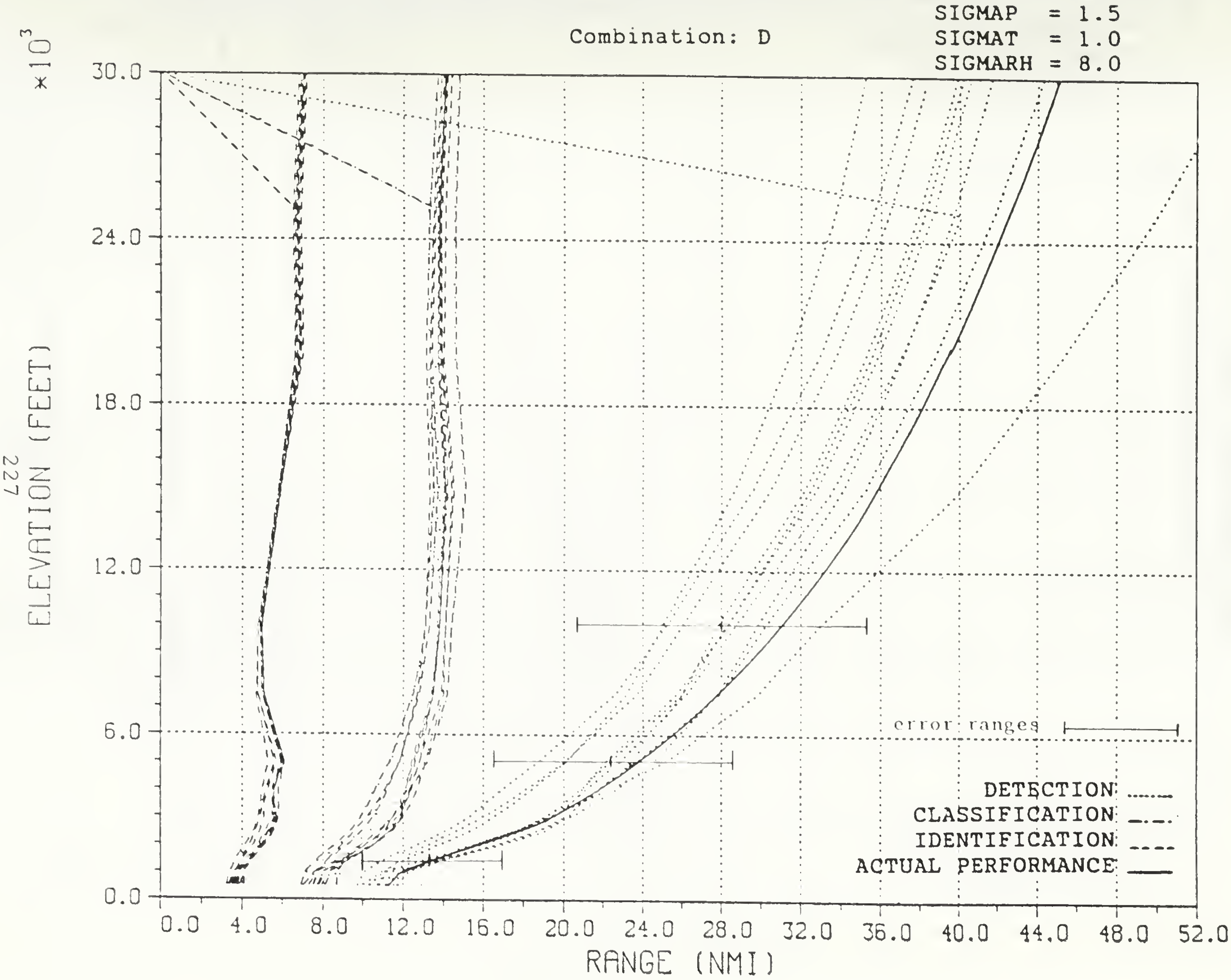


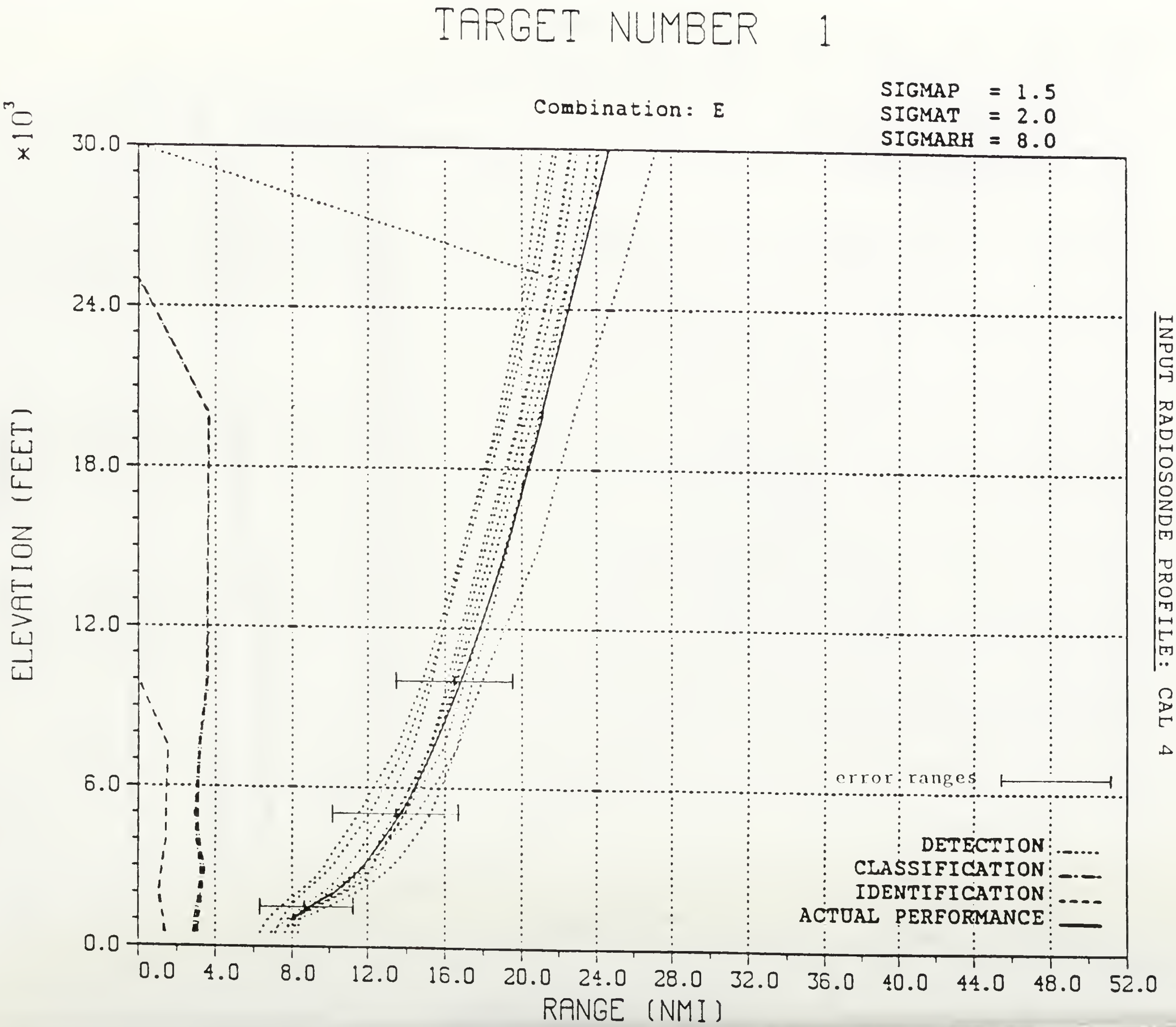
TARGET NUMBER 2
Combination: D
SIGMAP = 1.5
SIGMAT = 1.0
SIGMARH = 8.0
ELEVATION (FEET)
*10^3
30.0
24.0
18.0
12.0
6.0
0.0
RANGE (NMI)
0.0
4.0
8.0
12.0
16.0
20.0
24.0
28.0
32.0
36.0
40.0
44.0
48.0
52.0
error ranges
DETECTION
CLASSIFICATION
IDENTIFICATION
ACTUAL PERFORMANCE



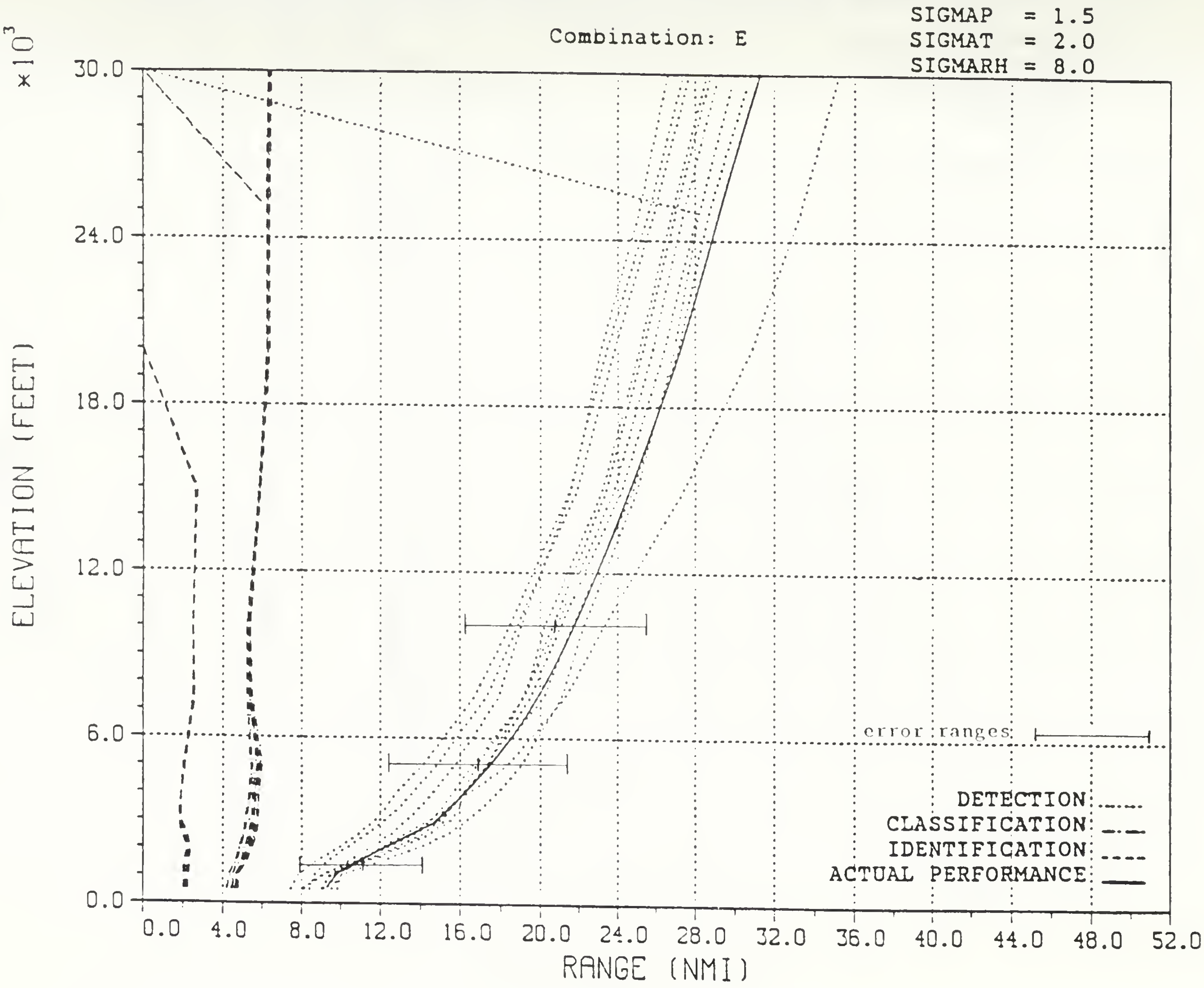
TARGET NUMBER 3
Combination: D
SIGMAP = 1.5
SIGMAT = 1.0
SIGMARH = 8.0
ELEVATION (FEET)
*10^3
30.0
24.0
18.0
12.0
6.0
0.0
RANGE (NMI)
0.0
4.0
8.0
12.0
16.0
20.0
24.0
28.0
32.0
36.0
40.0
44.0
48.0
52.0
error ranges
DETECTION
CLASSIFICATION
IDENTIFICATION
ACTUAL PERFORMANCE

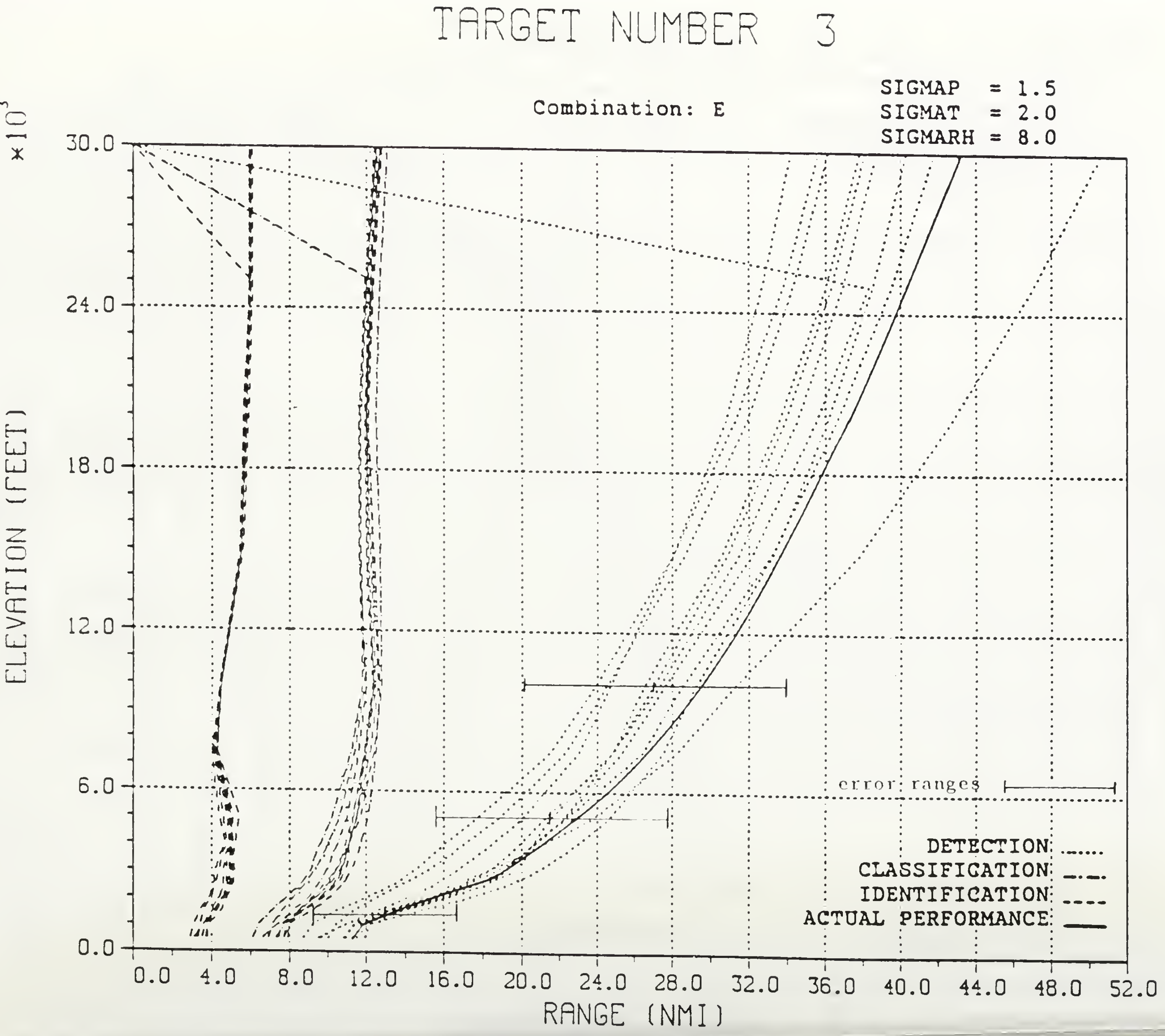
TARGET NUMBER 4



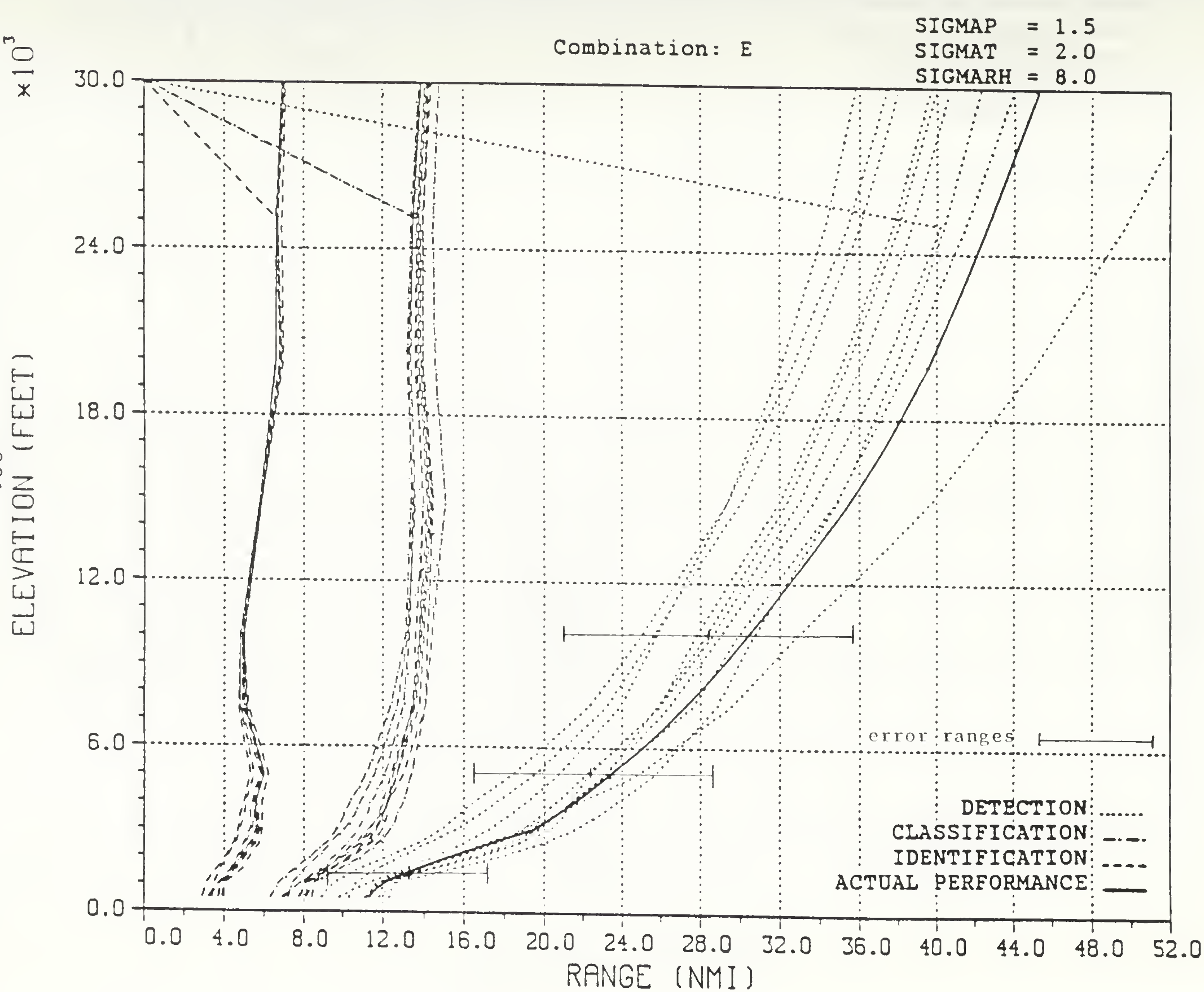

TARGET NUMBER 1
Combination: E
SIGMAP = 1.5
SIGMAT = 2.0
SIGMARH = 8.0
INPUT RADIOSONDE PROFILE: CAL 4
ELEVATION (FEET)
×10^3
30.0
24.0
18.0
12.0
6.0
0.0
RANGE (NMI)
0.0
4.0
8.0
12.0
16.0
20.0
24.0
28.0
32.0
36.0
40.0
44.0
48.0
52.0
error ranges
DETECTION
CLASSIFICATION
IDENTIFICATION
ACTUAL PERFORMANCE

TARGET NUMBER 2

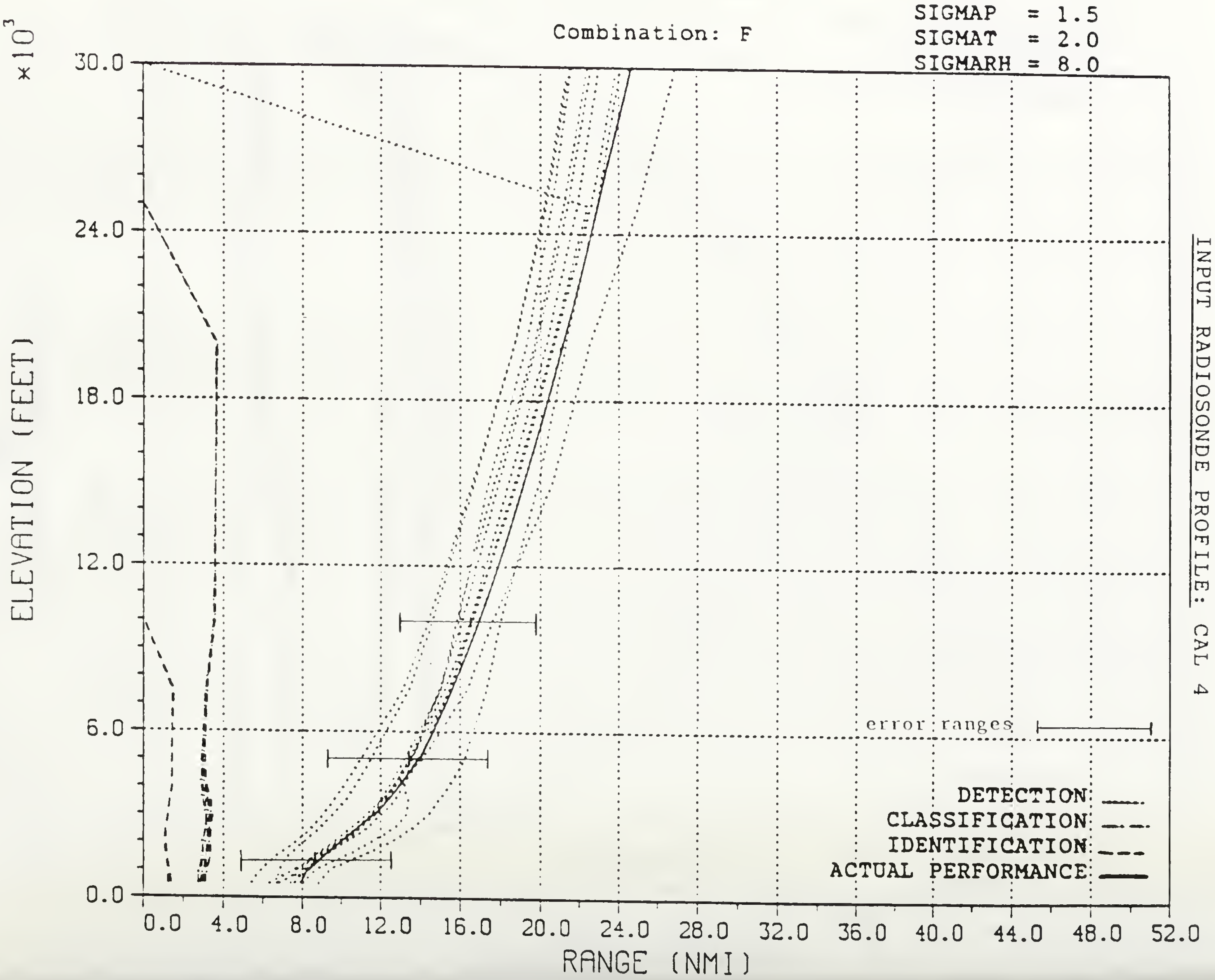


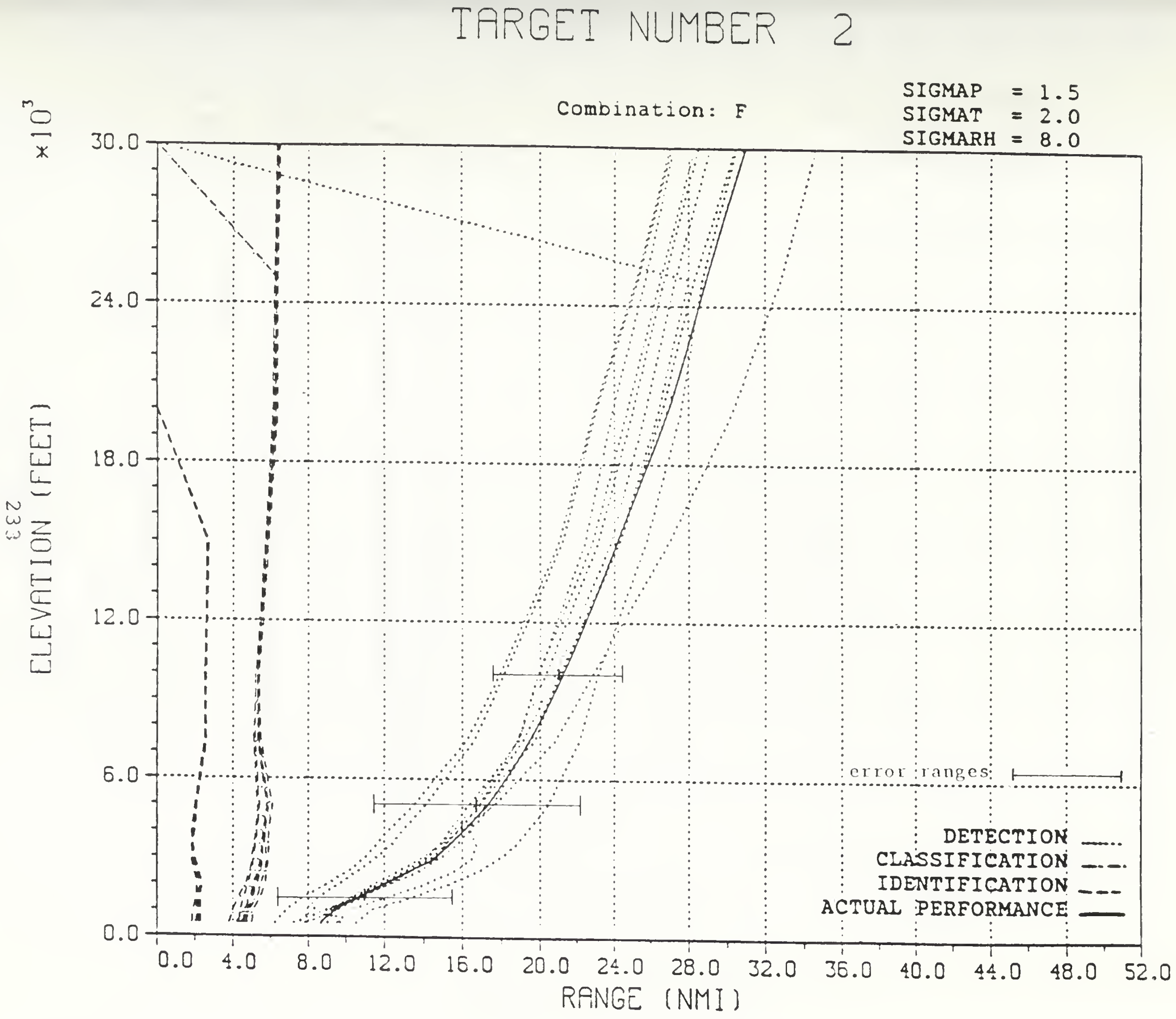

TARGET NUMBER 3
Combination: E
SIGMAP = 1.5
SIGMAT = 2.0
SIGMARH = 8.0
×10^3
ELEVATION (FEET)
30.0
24.0
18.0
12.0
6.0
0.0
0.0
4.0
8.0
12.0
16.0
20.0
24.0
28.0
32.0
36.0
40.0
44.0
48.0
52.0
RANGE (NMI)
error ranges
DETECTION
CLASSIFICATION
IDENTIFICATION
ACTUAL PERFORMANCE

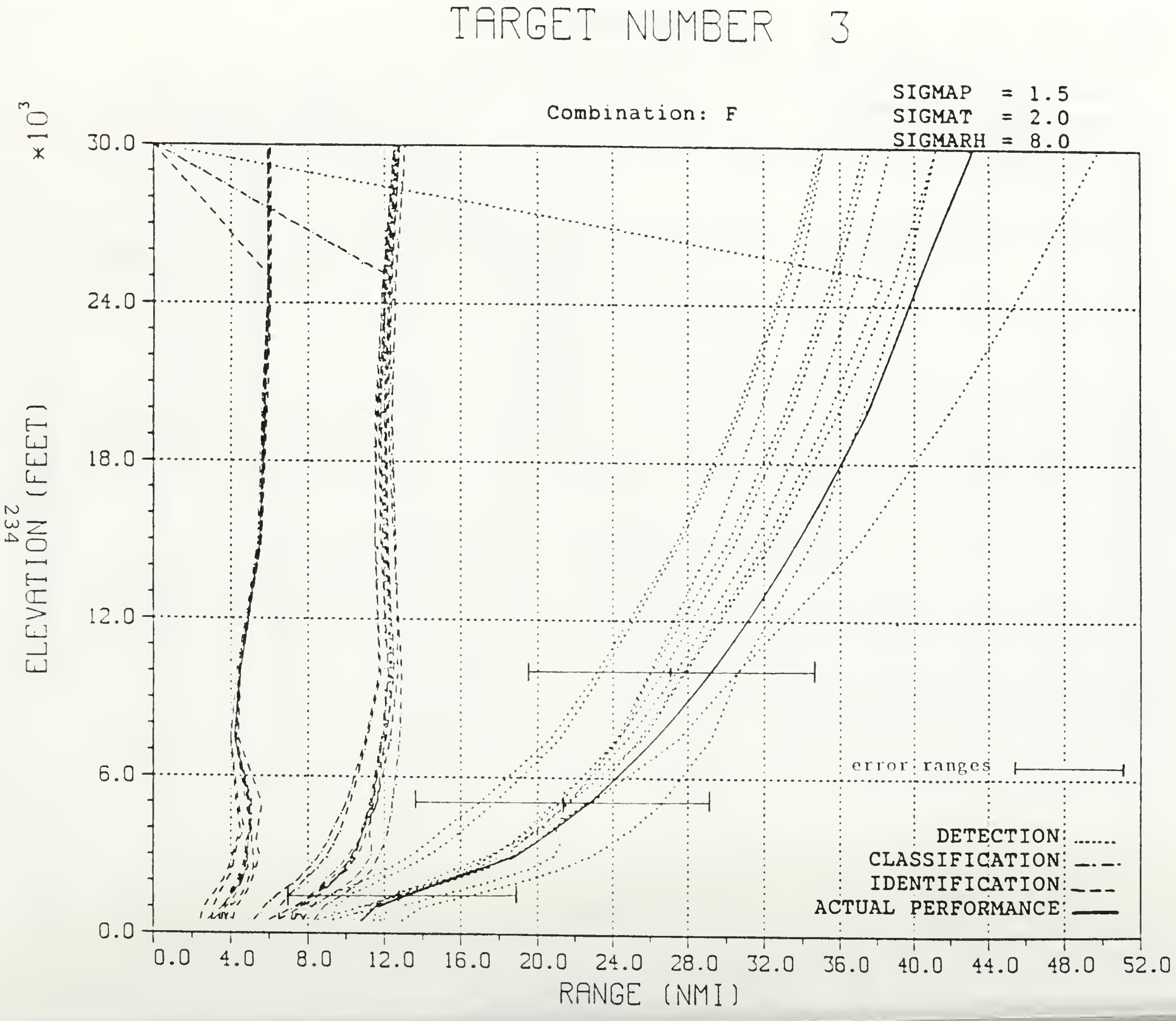
TARGET NUMBER 4



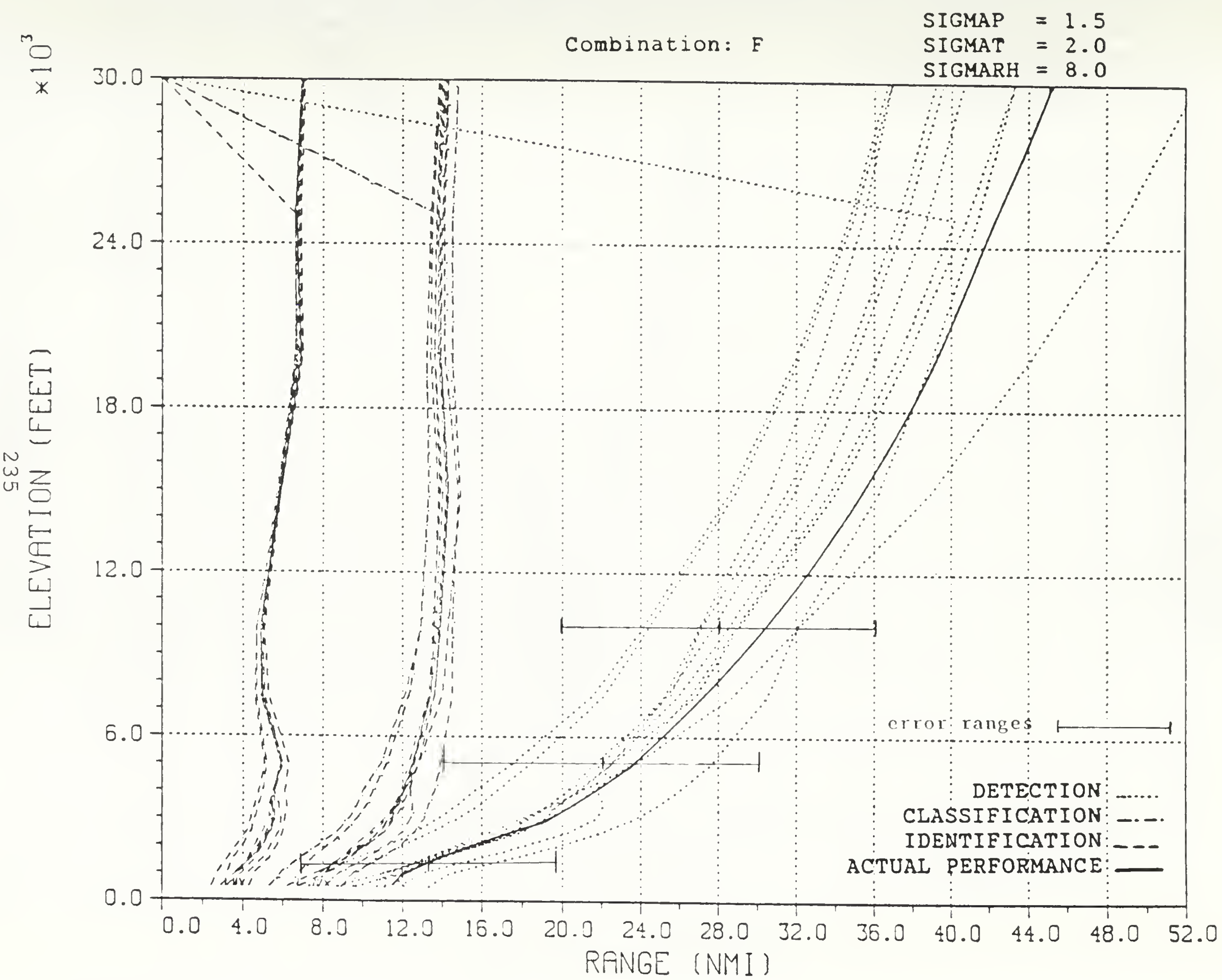
TARGET NUMBER 1

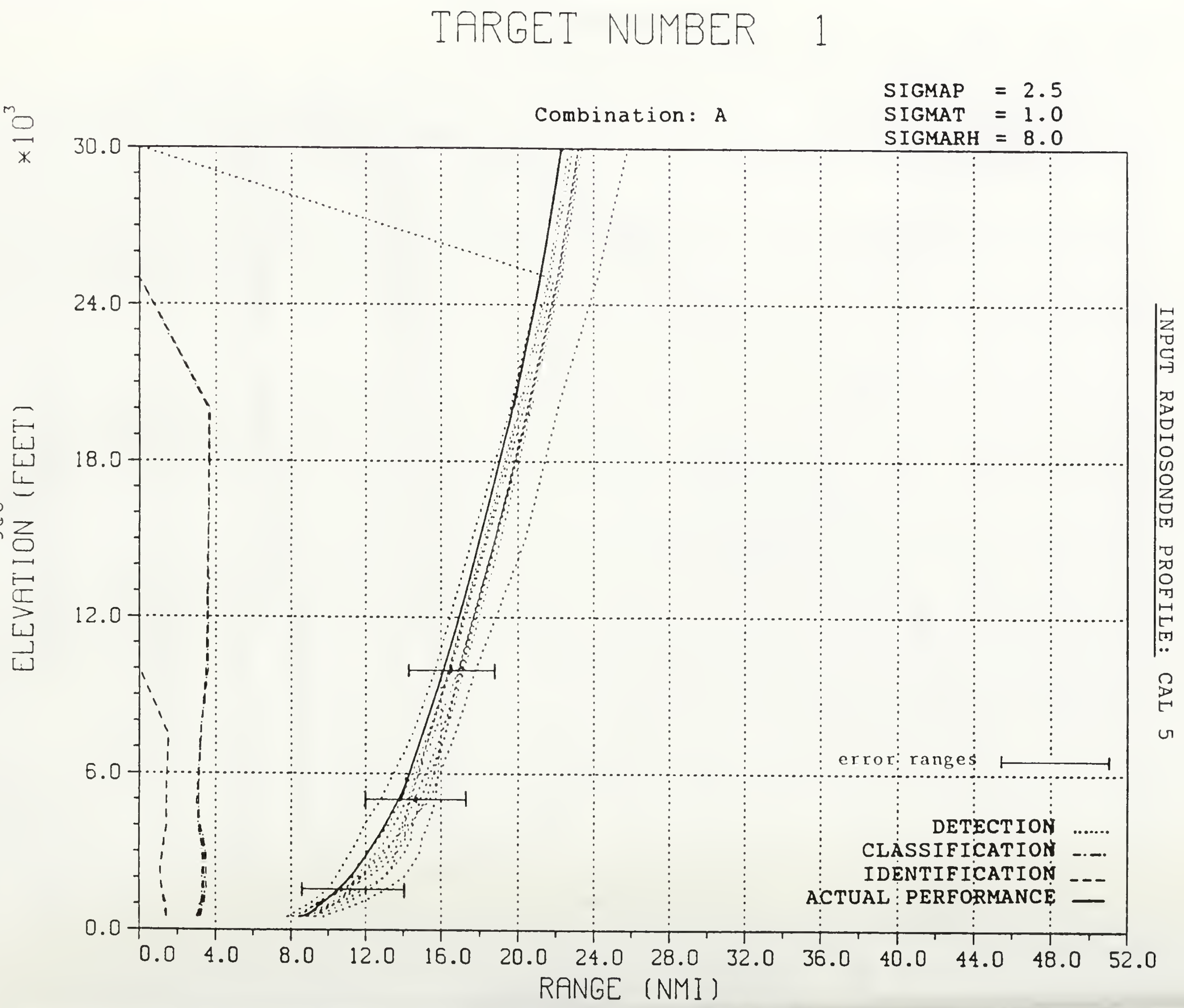


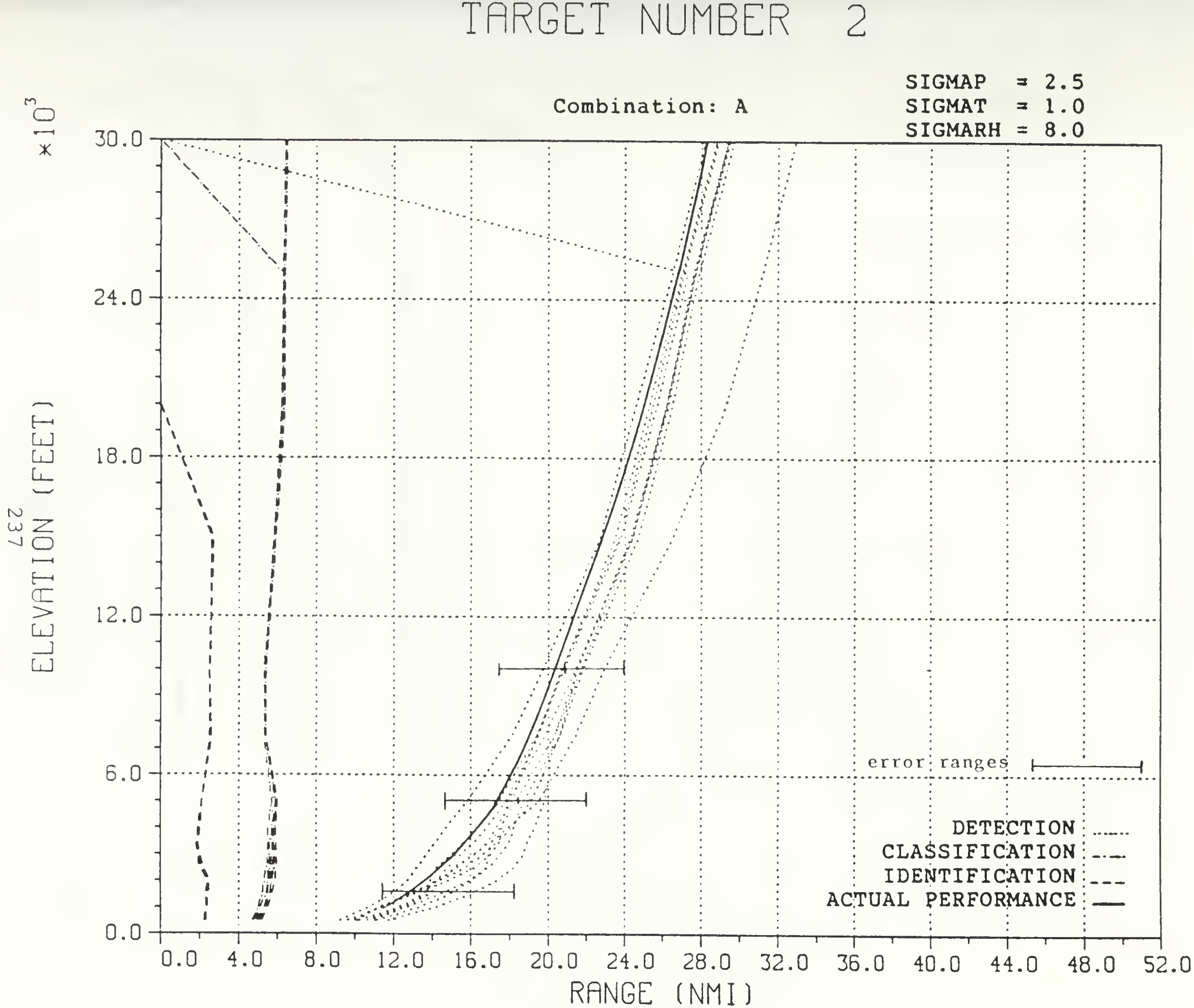

TARGET NUMBER 2
Combination: F
SIGMAP = 1.5
SIGMAT = 2.0
SIGMARH = 8.0
error ranges
DETECTION
CLASSIFICATION
IDENTIFICATION
ACTUAL PERFORMANCE
ELEVATION (FEET) ×10^3
RANGE (NMI)
30.0
24.0
18.0
12.0
6.0
0.0
0.0
4.0
8.0
12.0
16.0
20.0
24.0
28.0
32.0
36.0
40.0
44.0
48.0
52.0

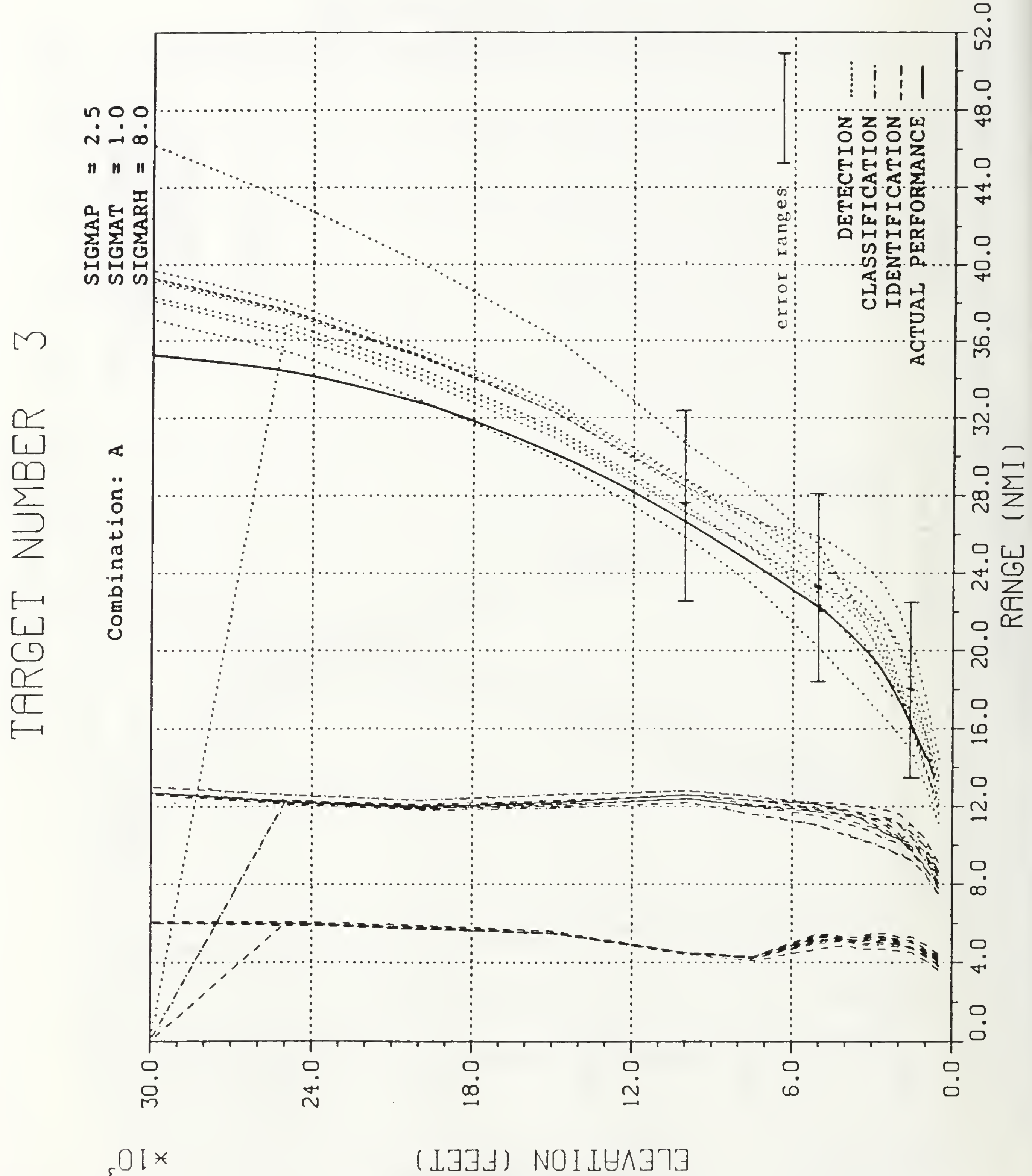

TARGET NUMBER 3
Combination: F
SIGMAP = 1.5
SIGMAT = 2.0
SIGMARH = 8.0
ELEVATION (FEET)
$\times 10^3$
RANGE (NMI)
error ranges
DETECTION
CLASSIFICATION
IDENTIFICATION
ACTUAL PERFORMANCE
30.0
24.0
18.0
12.0
6.0
0.0
4.0
8.0
12.0
16.0
20.0
24.0
28.0
32.0
36.0
40.0
44.0
48.0
52.0

TARGET NUMBER 4

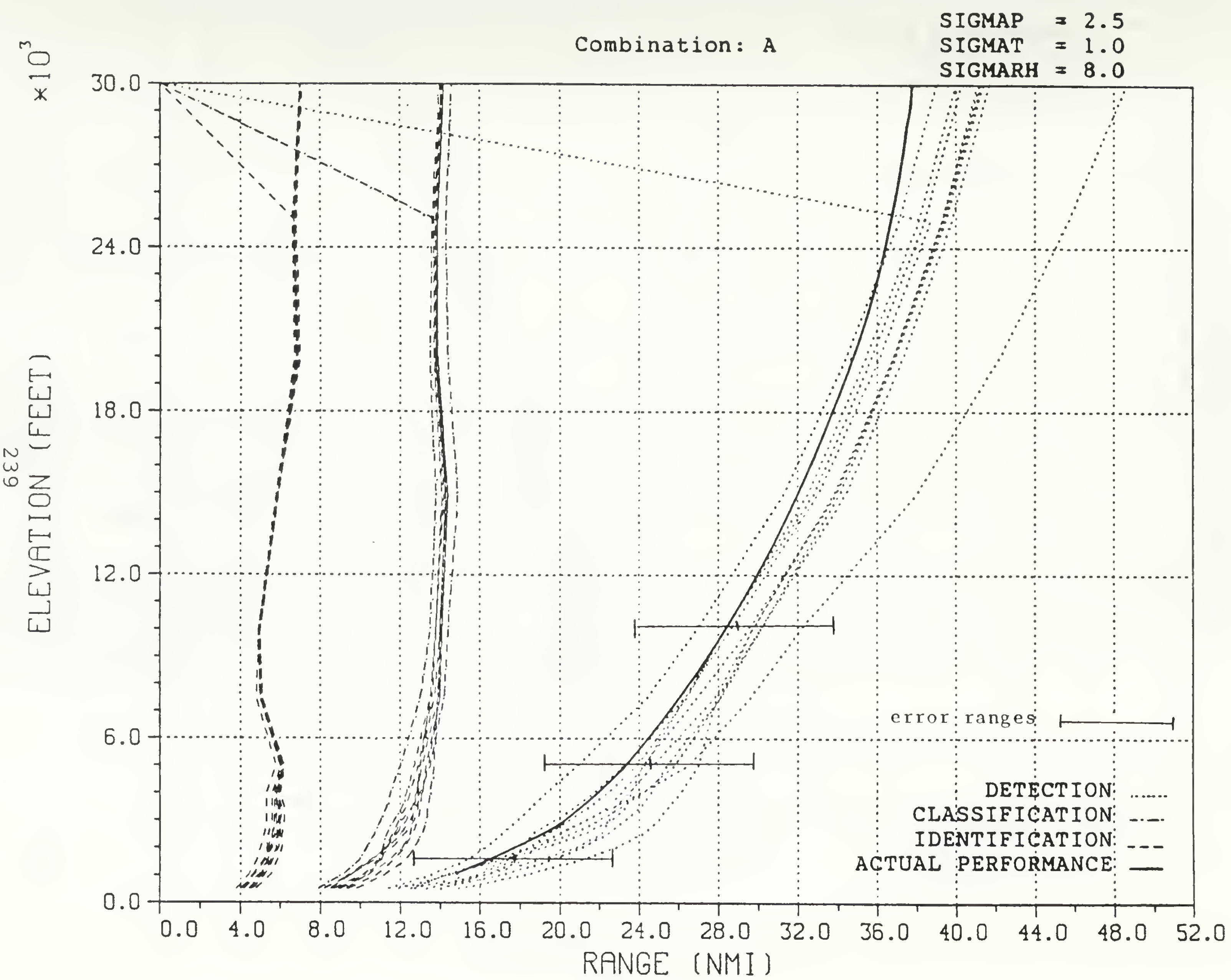


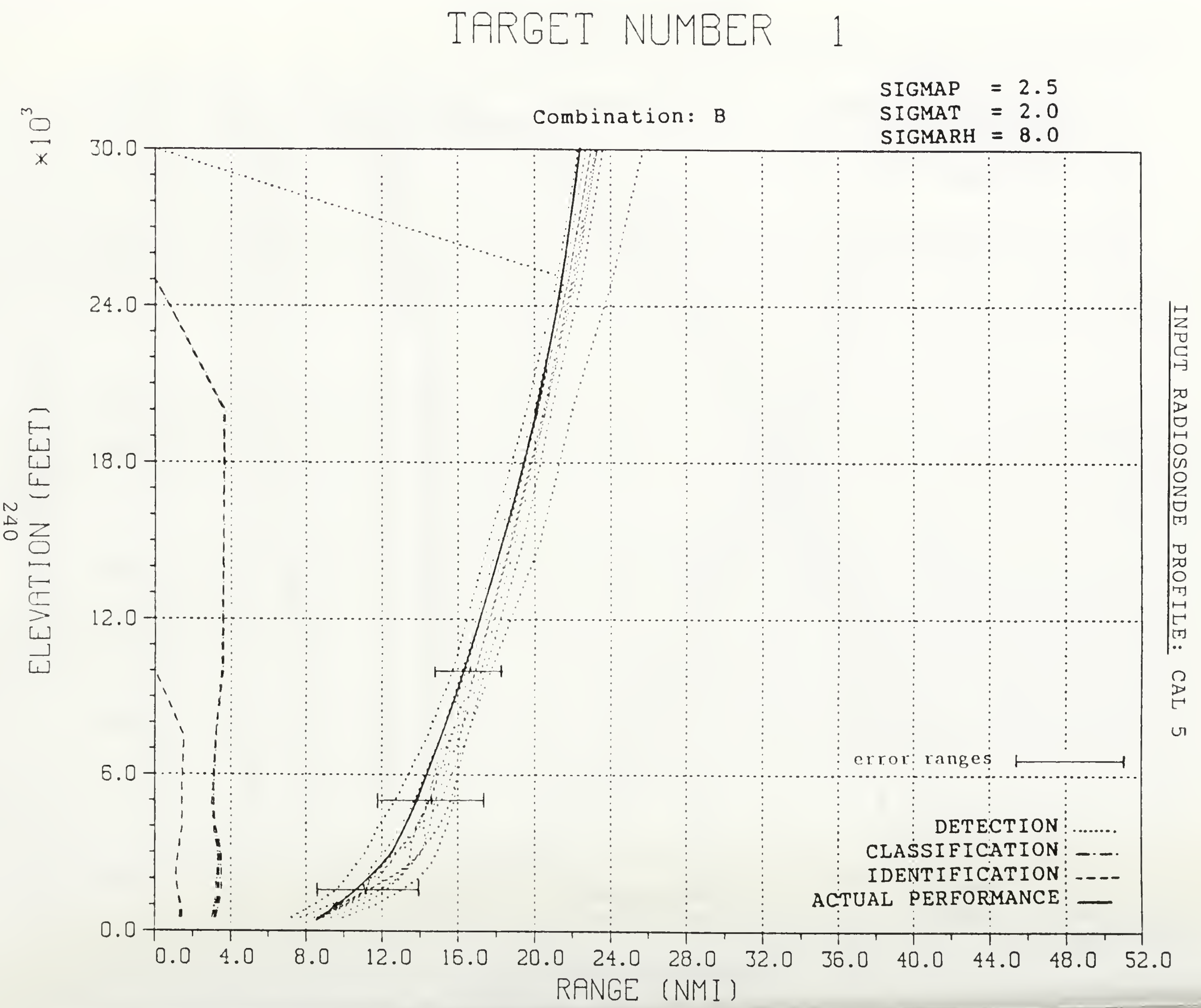

TARGET NUMBER 1
Combination: A
SIGMAP = 2.5
SIGMAT = 1.0
SIGMARH = 8.0
INPUT RADIOSONDE PROFILE: CAL 5
ELEVATION (FEET)
$\times 10^3$
30.0
24.0
18.0
12.0
6.0
0.0
RANGE (NMI)
0.0
4.0
8.0
12.0
16.0
20.0
24.0
28.0
32.0
36.0
40.0
44.0
48.0
52.0
error ranges
DETECTION
CLASSIFICATION
IDENTIFICATION
ACTUAL PERFORMANCE

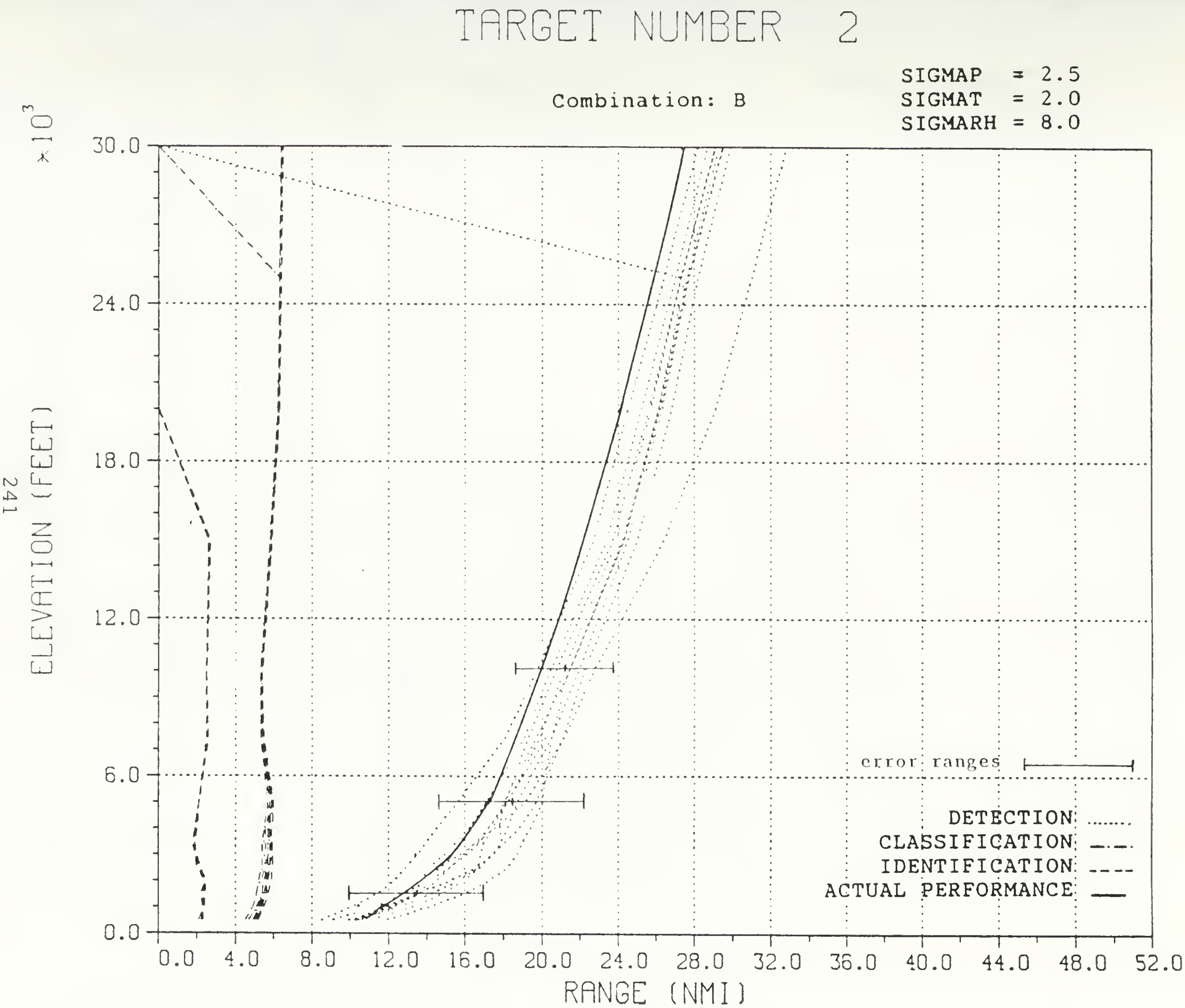

TARGET NUMBER 2
Combination: A
SIGMAP = 2.5
SIGMAT = 1.0
SIGMARH = 8.0
$\times 10^3$
ELEVATION (FEET)
30.0
24.0
18.0
12.0
6.0
0.0
0.0
4.0
8.0
12.0
16.0
20.0
24.0
28.0
32.0
36.0
40.0
44.0
48.0
52.0
RANGE (NMI)
error ranges
DETECTION
CLASSIFICATION
IDENTIFICATION
ACTUAL PERFORMANCE

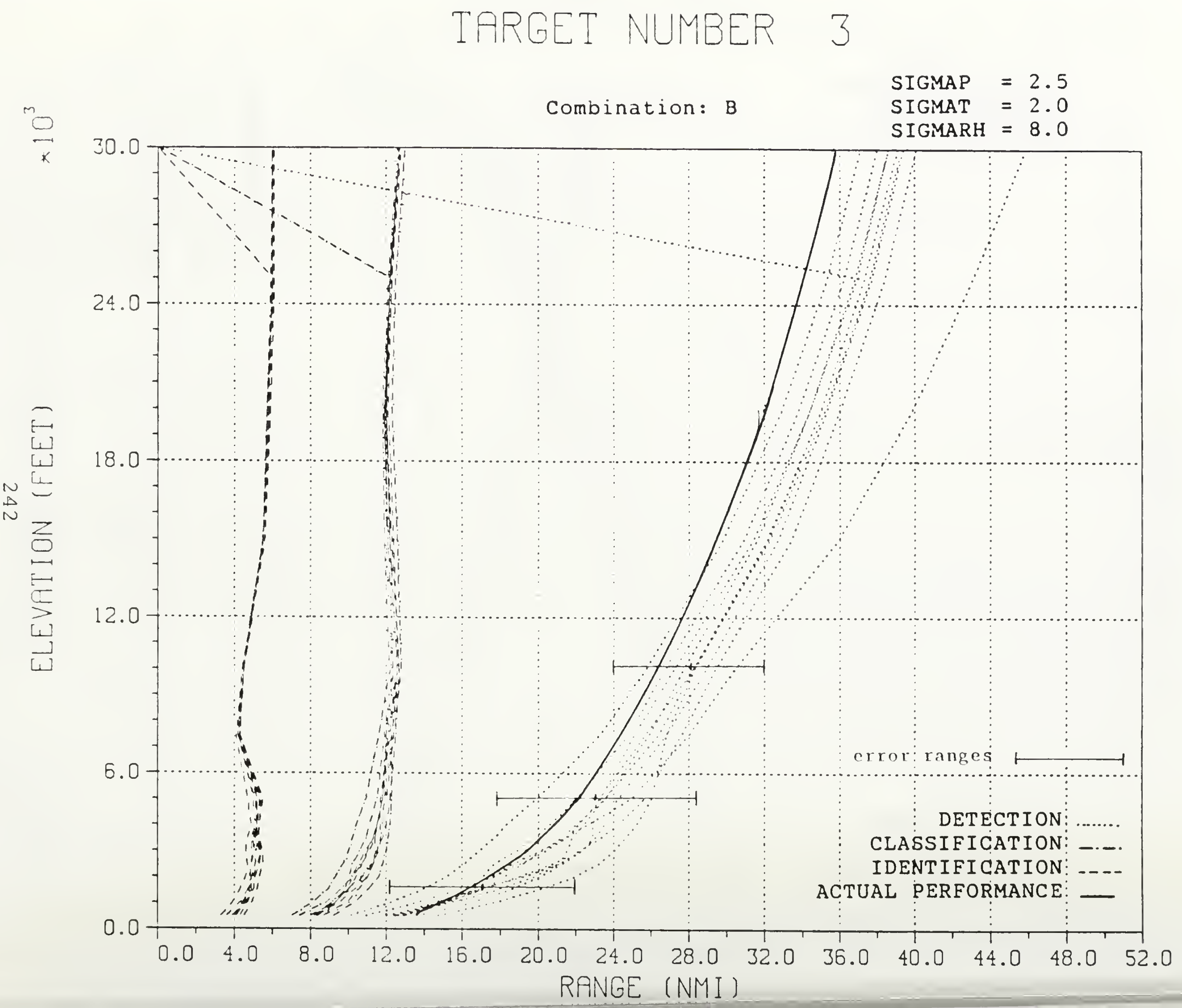

TARGET NUMBER 3
Combination: A
SIGMAP = 2.5
SIGMAT = 1.0
SIGMARH = 8.0
error ranges
DETECTION
CLASSIFICATION
IDENTIFICATION
ACTUAL PERFORMANCE
RANGE (NMI)
ELEVATION (FEET)
$\times 10^3$
0.0
4.0
8.0
12.0
16.0
20.0
24.0
28.0
32.0
36.0
40.0
44.0
48.0
52.0
6.0
18.0
30.0

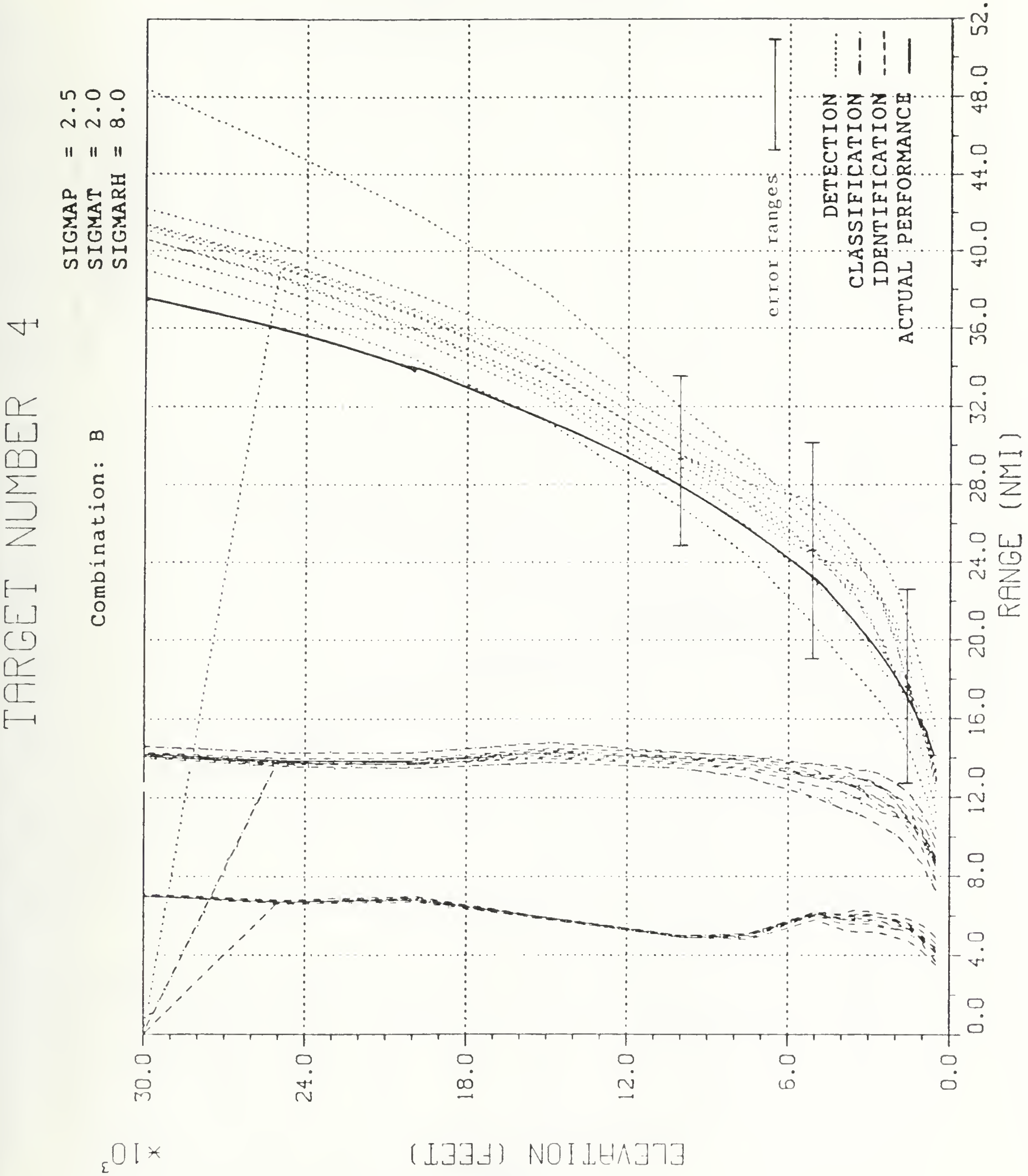
TARGET NUMBER 4



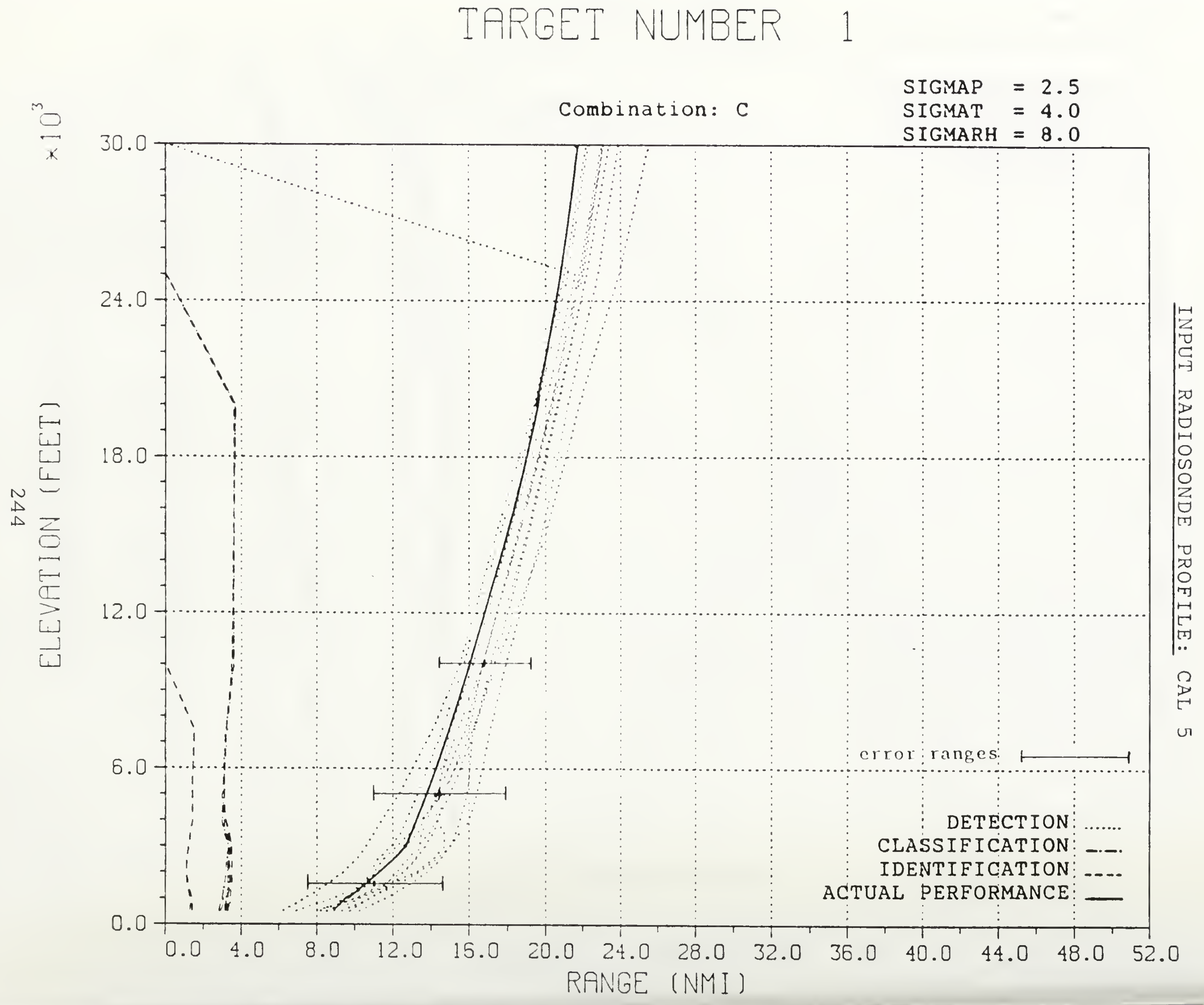

TARGET NUMBER 1
Combination: B
SIGMAP = 2.5
SIGMAT = 2.0
SIGMARH = 8.0
INPUT RADIOSONDE PROFILE: CAL 5
ELEVATION (FEET)
×10^3
30.0
24.0
18.0
12.0
6.0
0.0
RANGE (NMI)
0.0
4.0
8.0
12.0
16.0
20.0
24.0
28.0
32.0
36.0
40.0
44.0
48.0
52.0
error ranges
DETECTION
CLASSIFICATION
IDENTIFICATION
ACTUAL PERFORMANCE

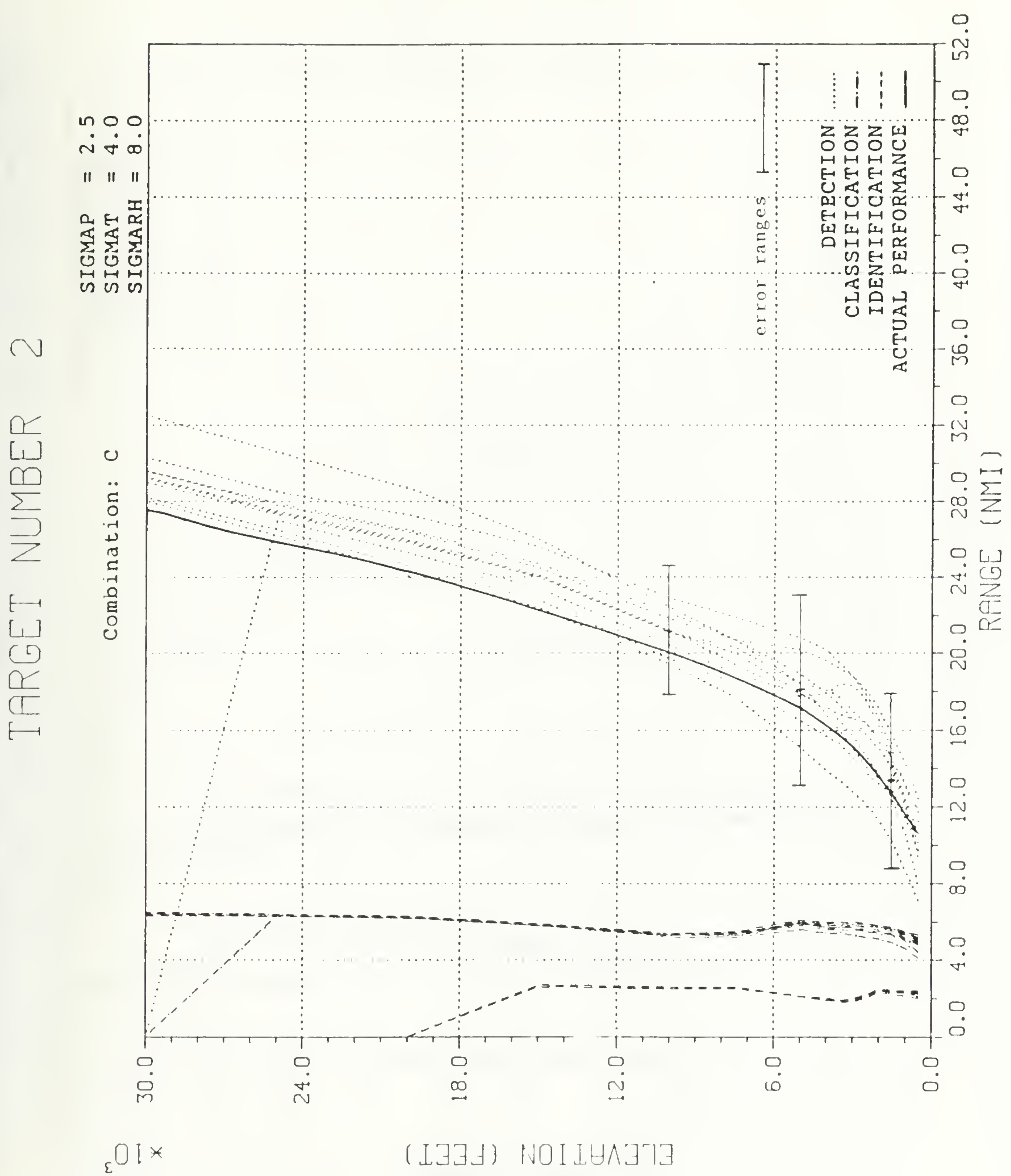

TARGET NUMBER 2
Combination: B
SIGMAP = 2.5
SIGMAT = 2.0
SIGMARH = 8.0
ELEVATION (FEET) $\times 10^3$
RANGE (NMI)
error ranges
DETECTION
CLASSIFICATION
IDENTIFICATION
ACTUAL PERFORMANCE
0.0
6.0
12.0
18.0
24.0
30.0
0.0
4.0
8.0
12.0
16.0
20.0
24.0
28.0
32.0
36.0
40.0
44.0
48.0
52.0


TARGET NUMBER 3
Combination: B
SIGMAP = 2.5
SIGMAT = 2.0
SIGMARH = 8.0
ELEVATION (FEET)
$\times 10^3$
30.0
24.0
18.0
12.0
6.0
0.0
RANGE (NMI)
0.0
4.0
8.0
12.0
16.0
20.0
24.0
28.0
32.0
36.0
40.0
44.0
48.0
52.0
error ranges
DETECTION
CLASSIFICATION
IDENTIFICATION
ACTUAL PERFORMANCE

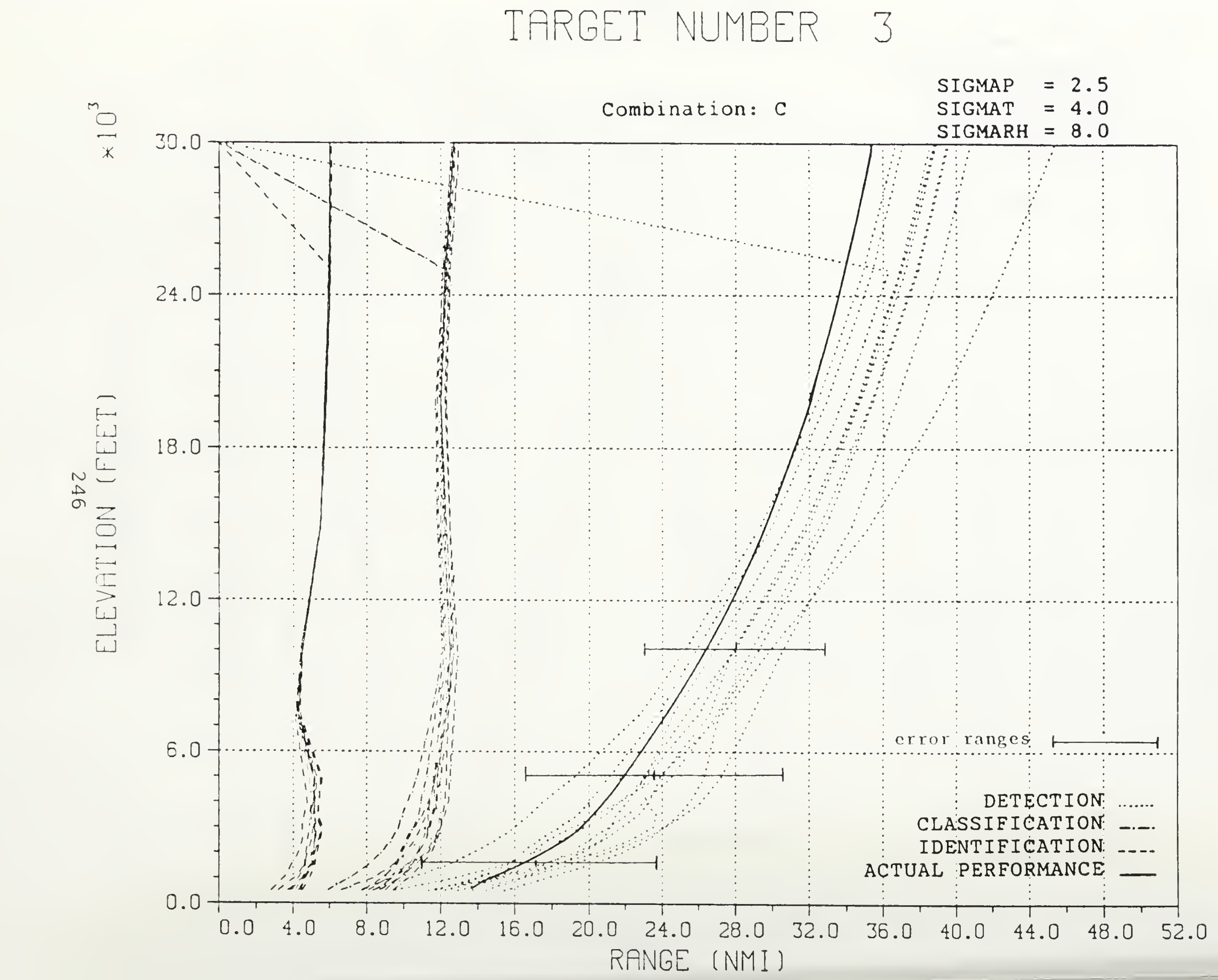


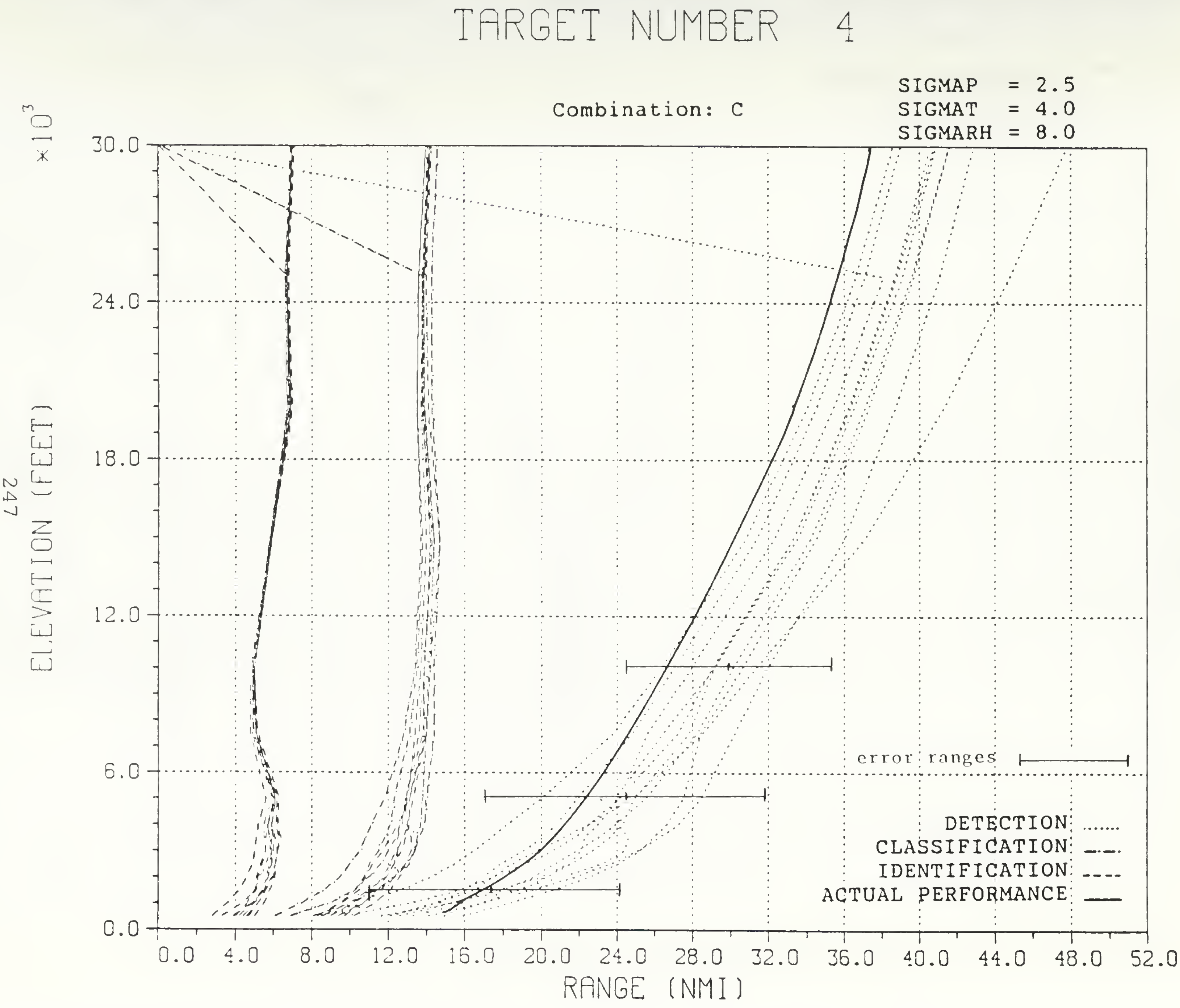
TARGET NUMBER 4
Combination: B
SIGMAP = 2.5
SIGMAT = 2.0
SIGMARH = 8.0
error ranges
DETECTION
CLASSIFICATION
IDENTIFICATION
ACTUAL PERFORMANCE
RANGE (NMI)
ELEVATION (FEET)
×10³
0.0
4.0
8.0
12.0
16.0
20.0
24.0
28.0
32.0
36.0
40.0
44.0
48.0
52.0
6.0
12.0
18.0
24.0
30.0


TARGET NUMBER 1
Combination: C
SIGMAP = 2.5
SIGMAT = 4.0
SIGMARH = 8.0
INPUT RADIOSONDE PROFILE: CAL 5
ELEVATION (FEET)
$\times 10^3$
30.0
24.0
18.0
12.0
6.0
0.0
RANGE (NMI)
0.0 4.0 8.0 12.0 16.0 20.0 24.0 28.0 32.0 36.0 40.0 44.0 48.0 52.0
error ranges
DETECTION
CLASSIFICATION
IDENTIFICATION
ACTUAL PERFORMANCE

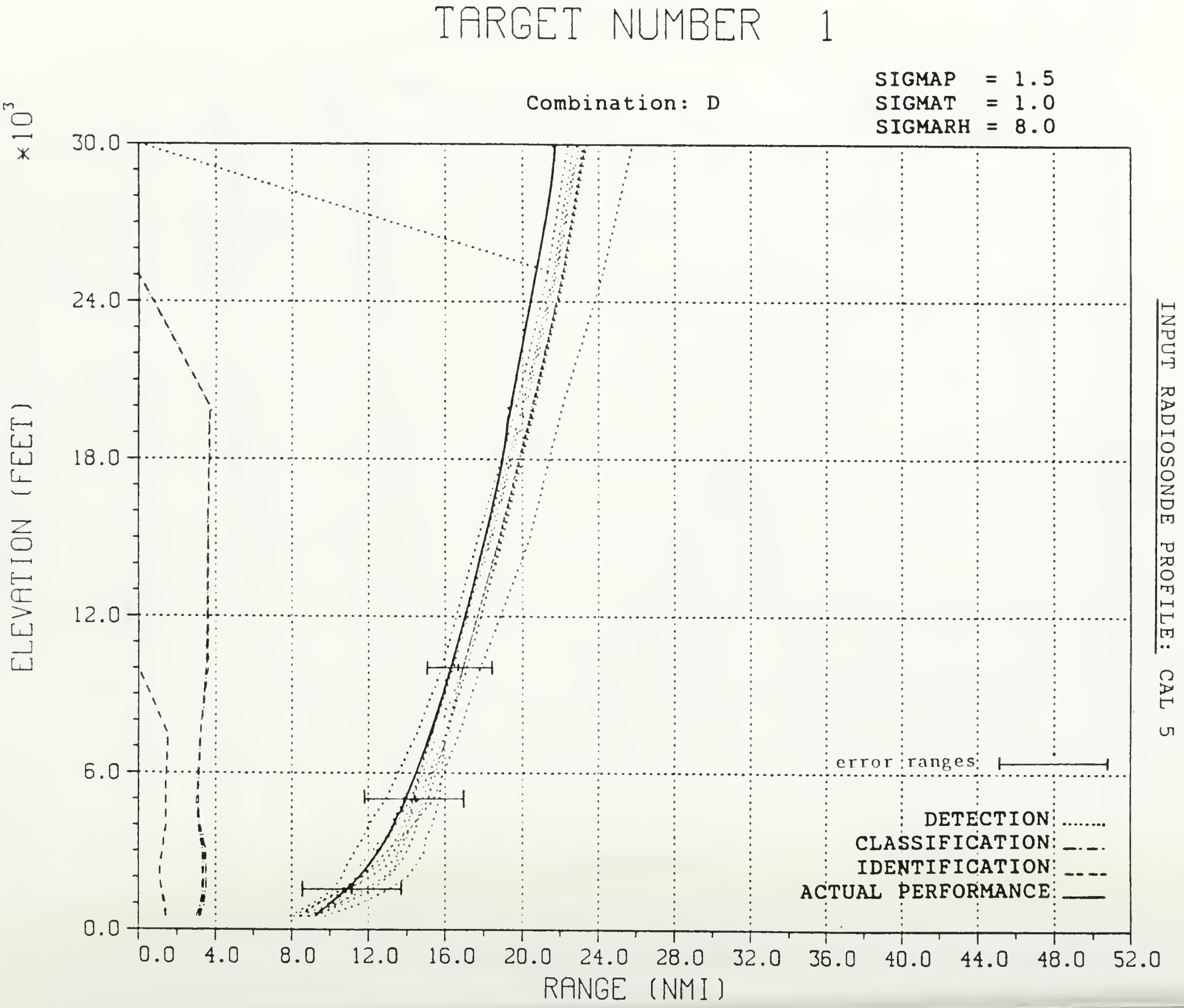


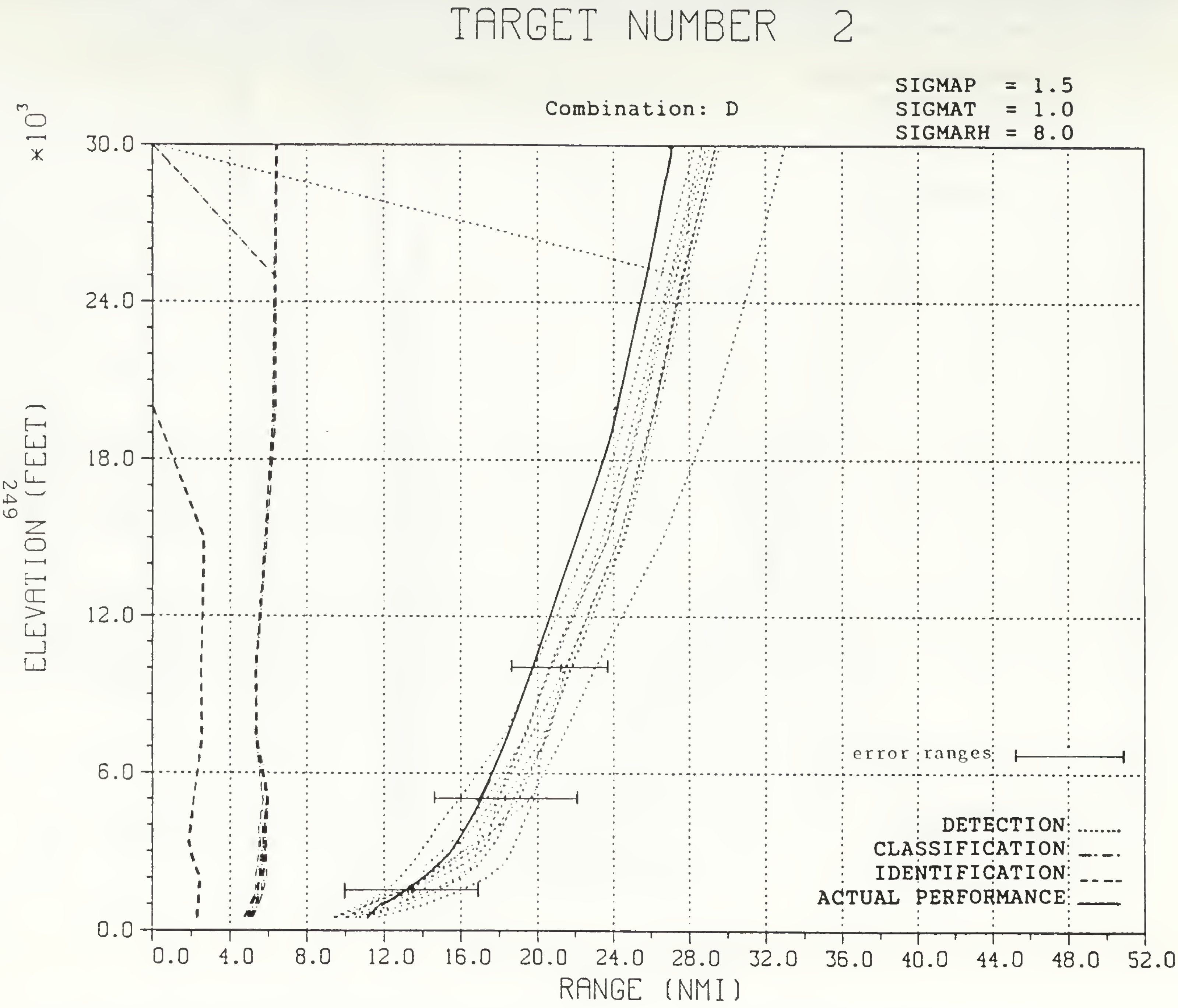
TARGET NUMBER 2
Combination: C
SIGMAP = 2.5
SIGMAT = 4.0
SIGMARH = 8.0
error ranges
DETECTION
CLASSIFICATION
IDENTIFICATION
ACTUAL PERFORMANCE
RANGE (NMI)
ELEVATION (FEET)
×10³
0.0
4.0
8.0
12.0
16.0
20.0
24.0
28.0
32.0
36.0
40.0
44.0
48.0
52.0
0.0
6.0
12.0
18.0
24.0
30.0


TARGET NUMBER 3
Combination: C
SIGMAP = 2.5
SIGMAT = 4.0
SIGMARH = 8.0
ELEVATION (FEET)
$\times 10^3$
30.0
24.0
18.0
12.0
6.0
0.0
RANGE (NMI)
0.0
4.0
8.0
12.0
16.0
20.0
24.0
28.0
32.0
36.0
40.0
44.0
48.0
52.0
error ranges
DETECTION
CLASSIFICATION
IDENTIFICATION
ACTUAL PERFORMANCE

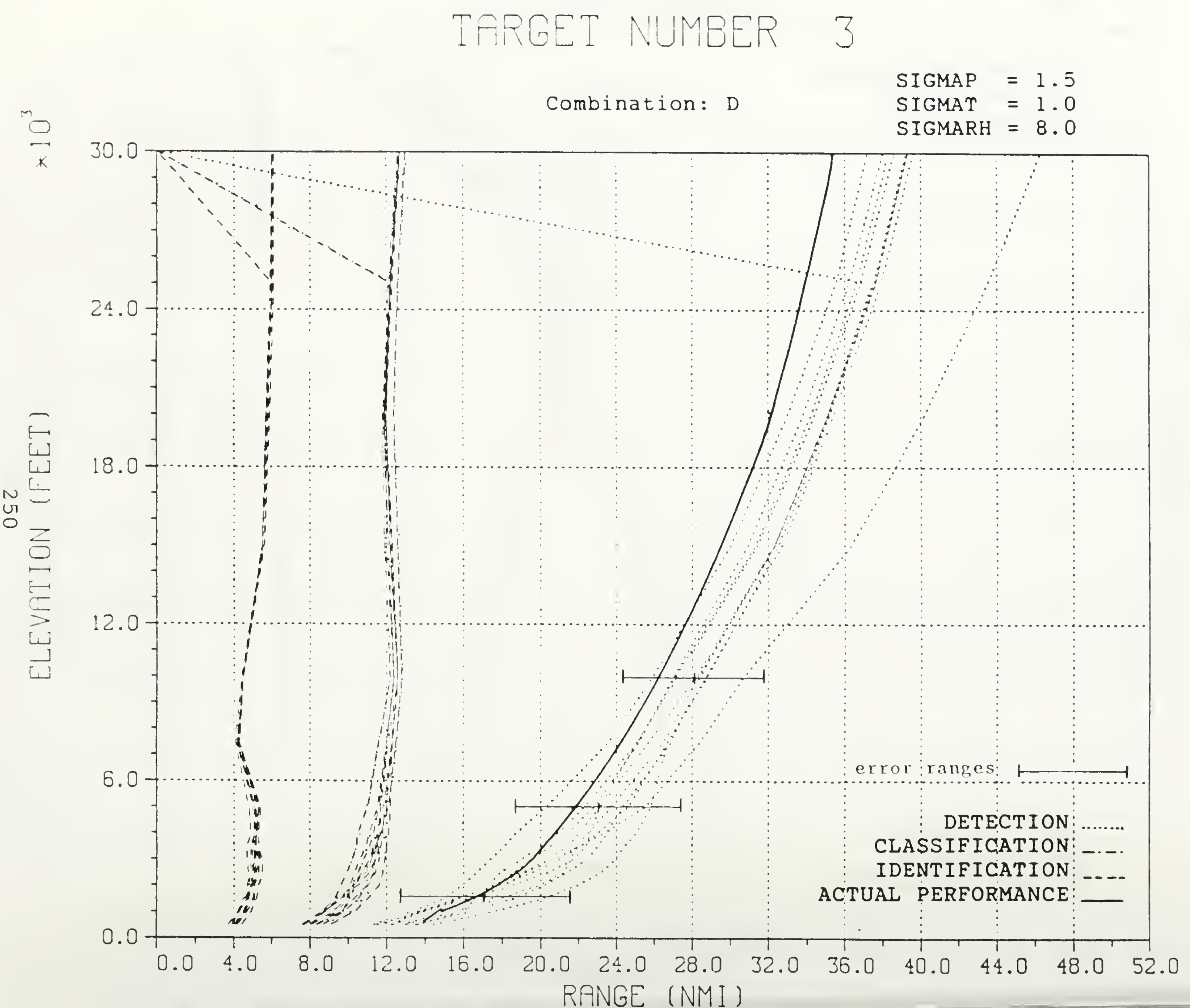


TARGET NUMBER 4
Combination: C
SIGMAP = 2.5
SIGMAT = 4.0
SIGMARH = 8.0
ELEVATION (FEET)
×10³
30.0
24.0
18.0
12.0
6.0
0.0
0.0
4.0
8.0
12.0
16.0
20.0
24.0
28.0
32.0
36.0
40.0
44.0
48.0
52.0
RANGE (NMI)
error ranges
DETECTION
CLASSIFICATION
IDENTIFICATION
ACTUAL PERFORMANCE

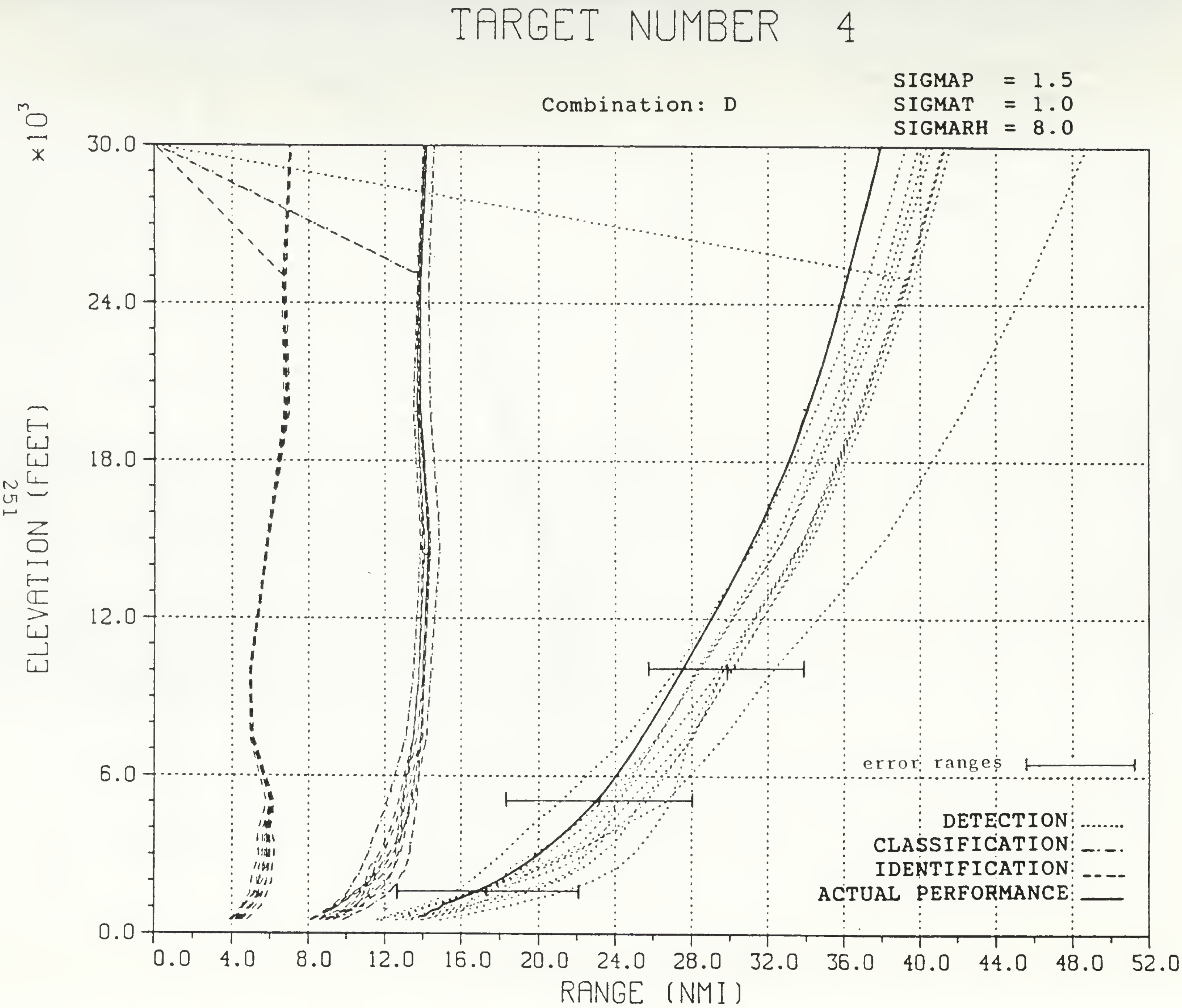

TARGET NUMBER 1
Combination: D
SIGMAP = 1.5
SIGMAT = 1.0
SIGMARH = 8.0
INPUT RADIOSONDE PROFILE: CAL 5
error ranges
DETECTION
CLASSIFICATION
IDENTIFICATION
ACTUAL PERFORMANCE
ELEVATION (FEET)
$\times 10^3$
RANGE (NMI)
30.0
24.0
18.0
12.0
6.0
0.0
4.0
8.0
12.0
16.0
20.0
24.0
28.0
32.0
36.0
40.0
44.0
48.0
52.0



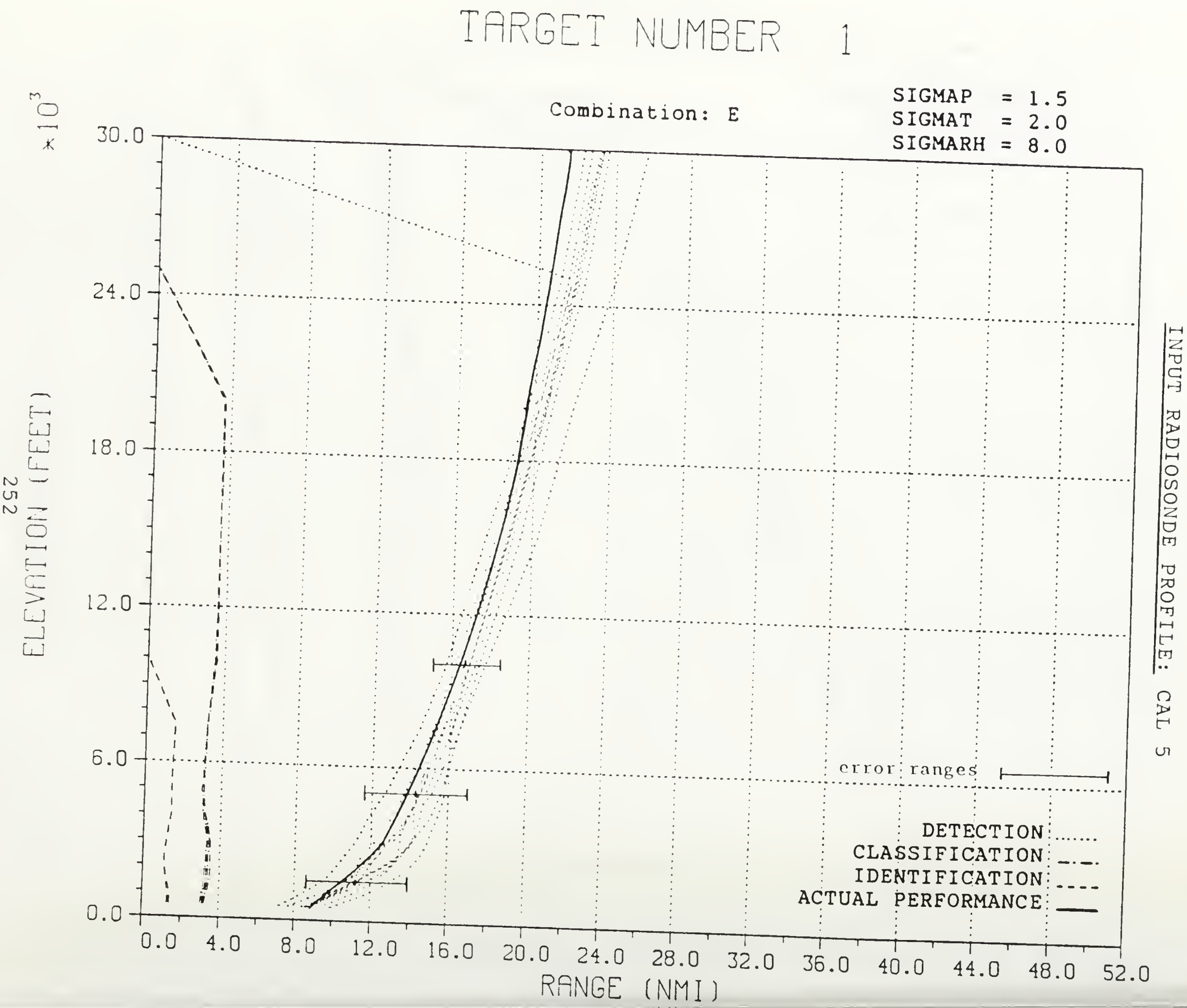
TARGET NUMBER 2
Combination: D
SIGMAP = 1.5
SIGMAT = 1.0
SIGMARH = 8.0
ELEVATION (FEET)
$\times 10^3$
30.0
24.0
18.0
12.0
6.0
0.0
0.0
4.0
8.0
12.0
16.0
20.0
24.0
28.0
32.0
36.0
40.0
44.0
48.0
52.0
RANGE (NMI)
error ranges
DETECTION
CLASSIFICATION
IDENTIFICATION
ACTUAL PERFORMANCE

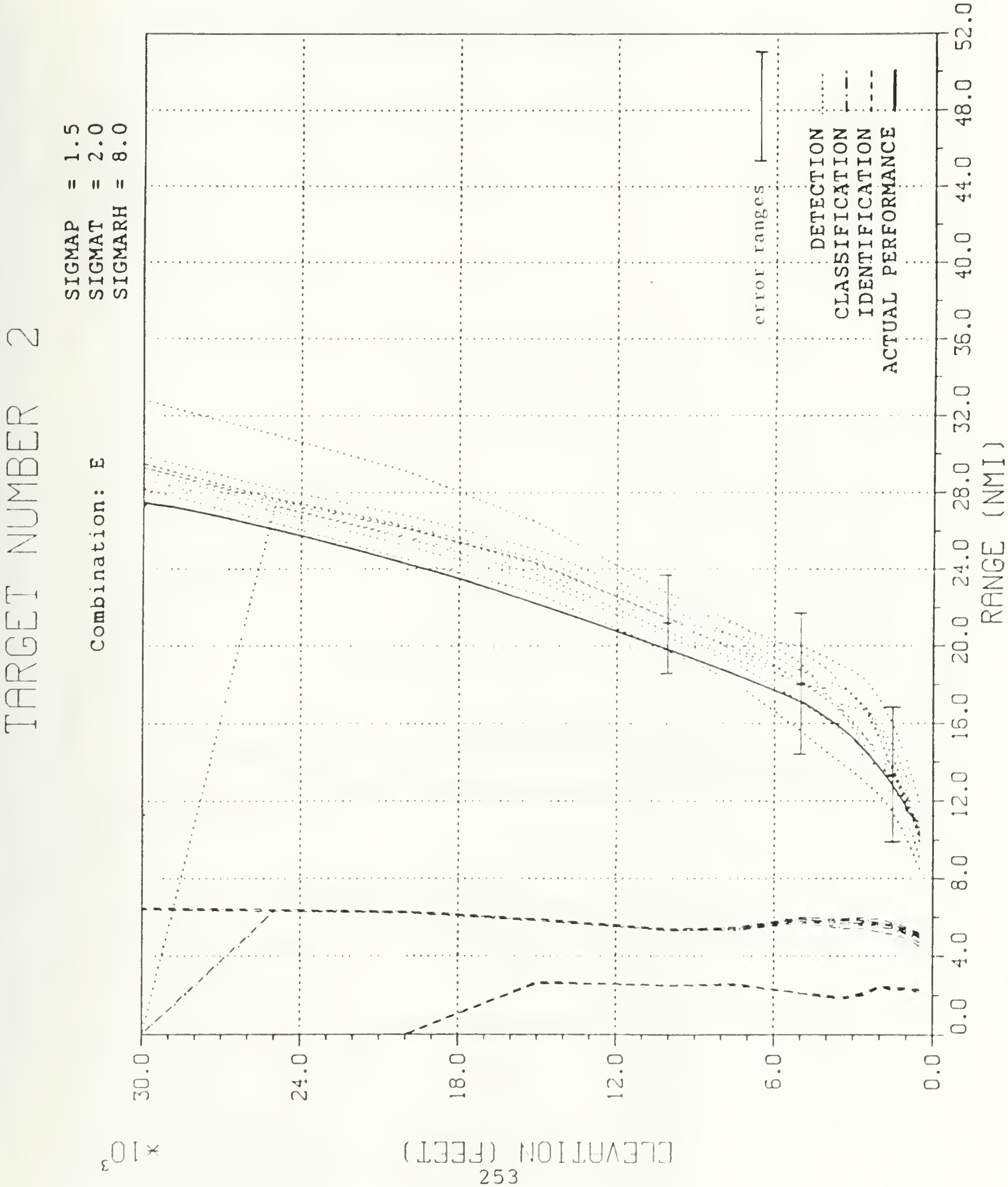


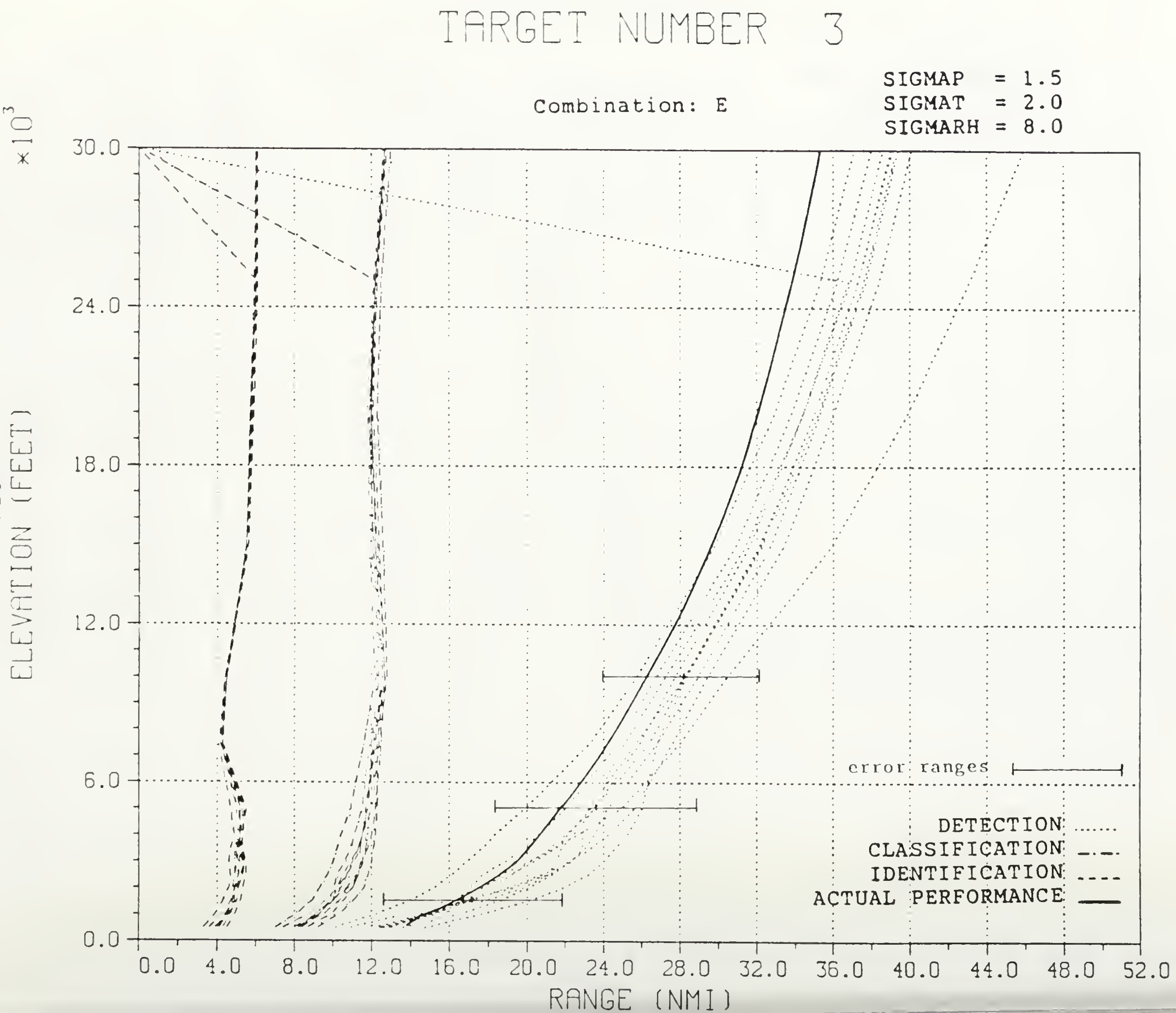
TARGET NUMBER 3
Combination: D
SIGMAP = 1.5
SIGMAT = 1.0
SIGMARH = 8.0
ELEVATION (FEET)
$\times 10^3$
30.0
24.0
18.0
12.0
6.0
0.0
RANGE (NMI)
0.0
4.0
8.0
12.0
16.0
20.0
24.0
28.0
32.0
36.0
40.0
44.0
48.0
52.0
error ranges
DETECTION
CLASSIFICATION
IDENTIFICATION
ACTUAL PERFORMANCE



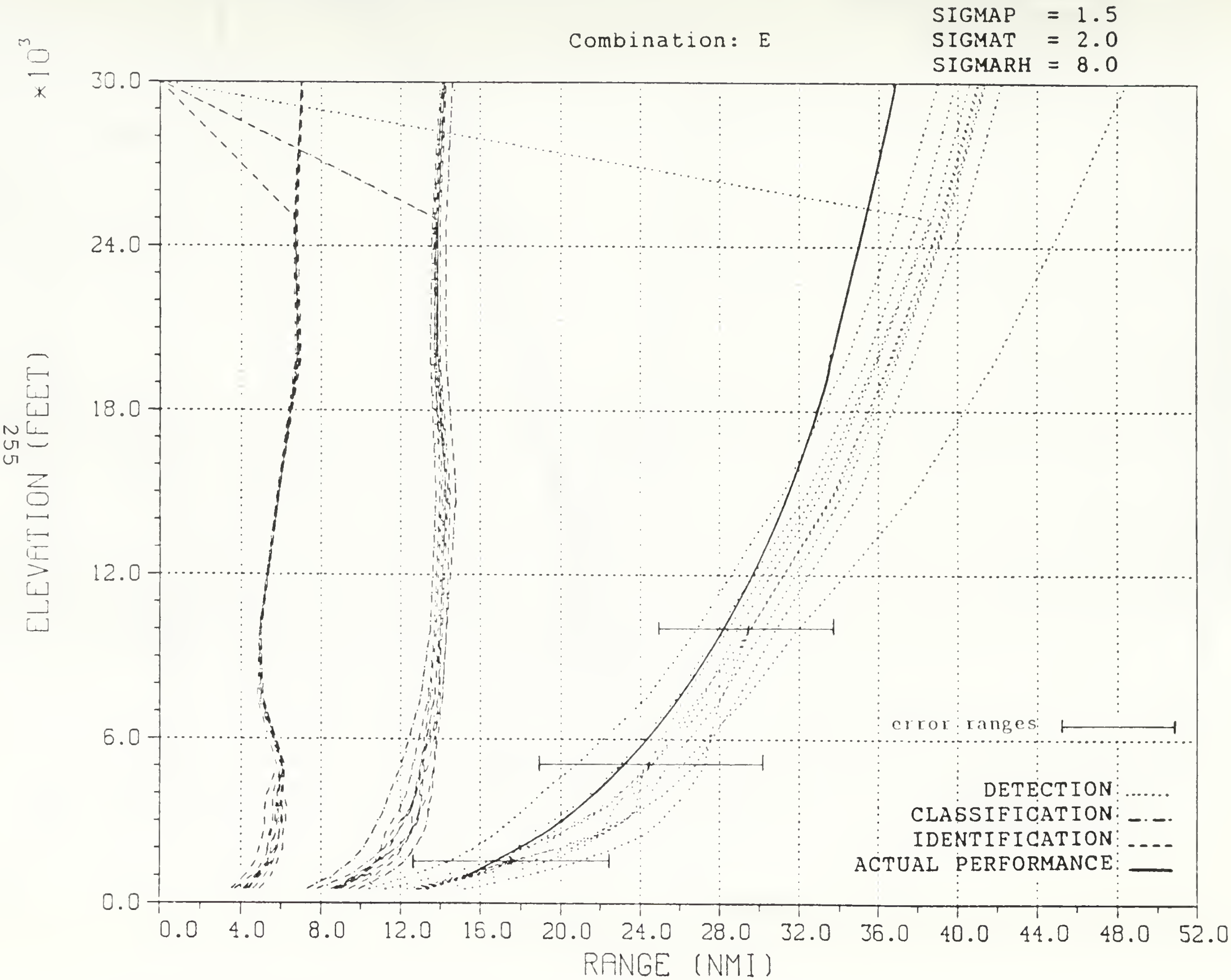
TARGET NUMBER 4
Combination: D
SIGMAP = 1.5
SIGMAT = 1.0
SIGMARH = 8.0
×10^3
ELEVATION (FEET)
30.0
24.0
18.0
12.0
6.0
0.0
0.0
4.0
8.0
12.0
16.0
20.0
24.0
28.0
32.0
36.0
40.0
44.0
48.0
52.0
RANGE (NMI)
error ranges
DETECTION
CLASSIFICATION
IDENTIFICATION
ACTUAL PERFORMANCE

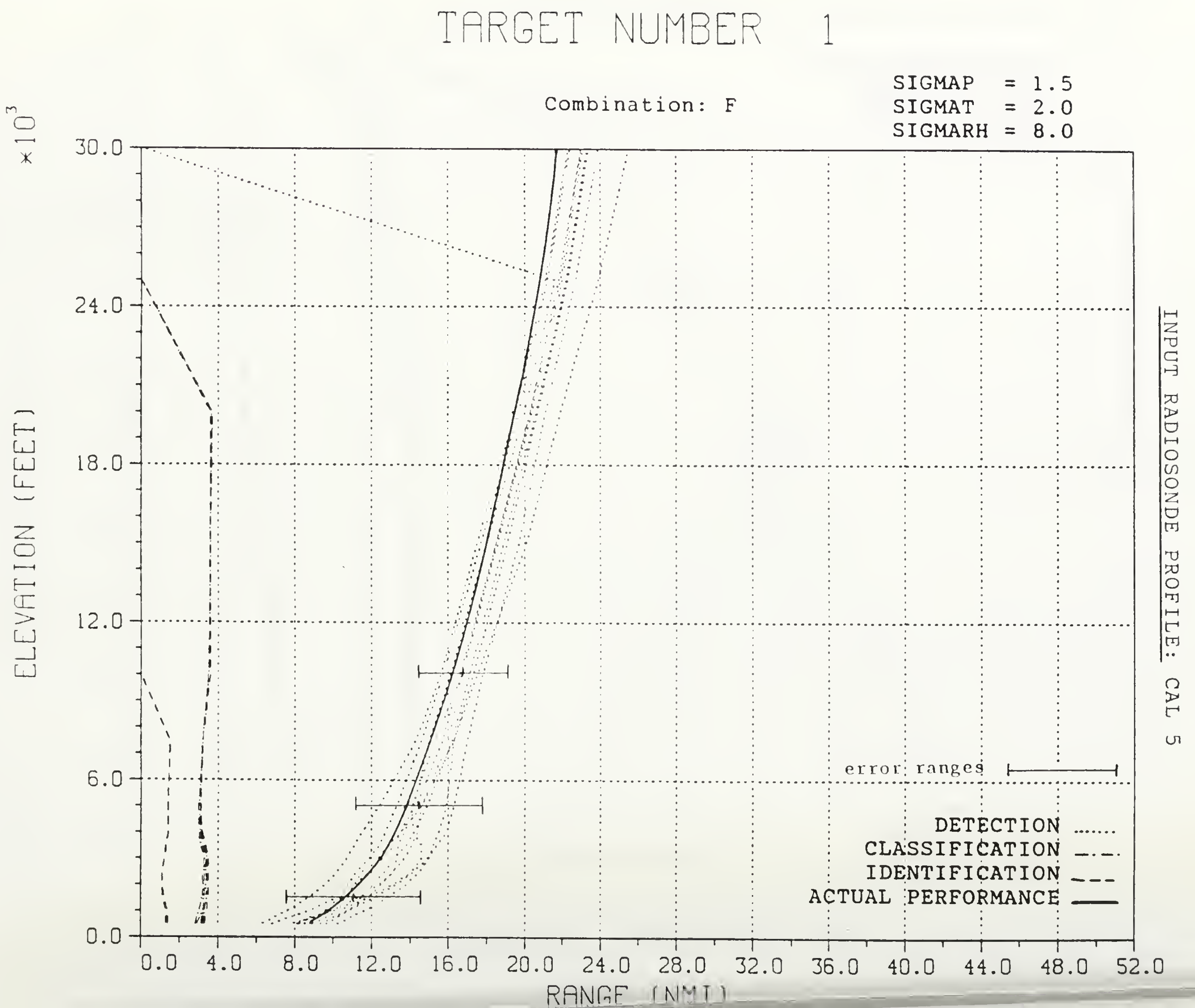

TARGET NUMBER 1
Combination: E
SIGMAP = 1.5
SIGMAT = 2.0
SIGMARH = 8.0
INPUT RADIOSONDE PROFILE: CAL 5
error ranges
DETECTION
CLASSIFICATION
IDENTIFICATION
ACTUAL PERFORMANCE
ELEVATION (FEET)
×10³
30.0
24.0
18.0
12.0
6.0
0.0
0.0
4.0
8.0
12.0
16.0
20.0
24.0
28.0
32.0
36.0
40.0
44.0
48.0
52.0
RANGE (NMI)

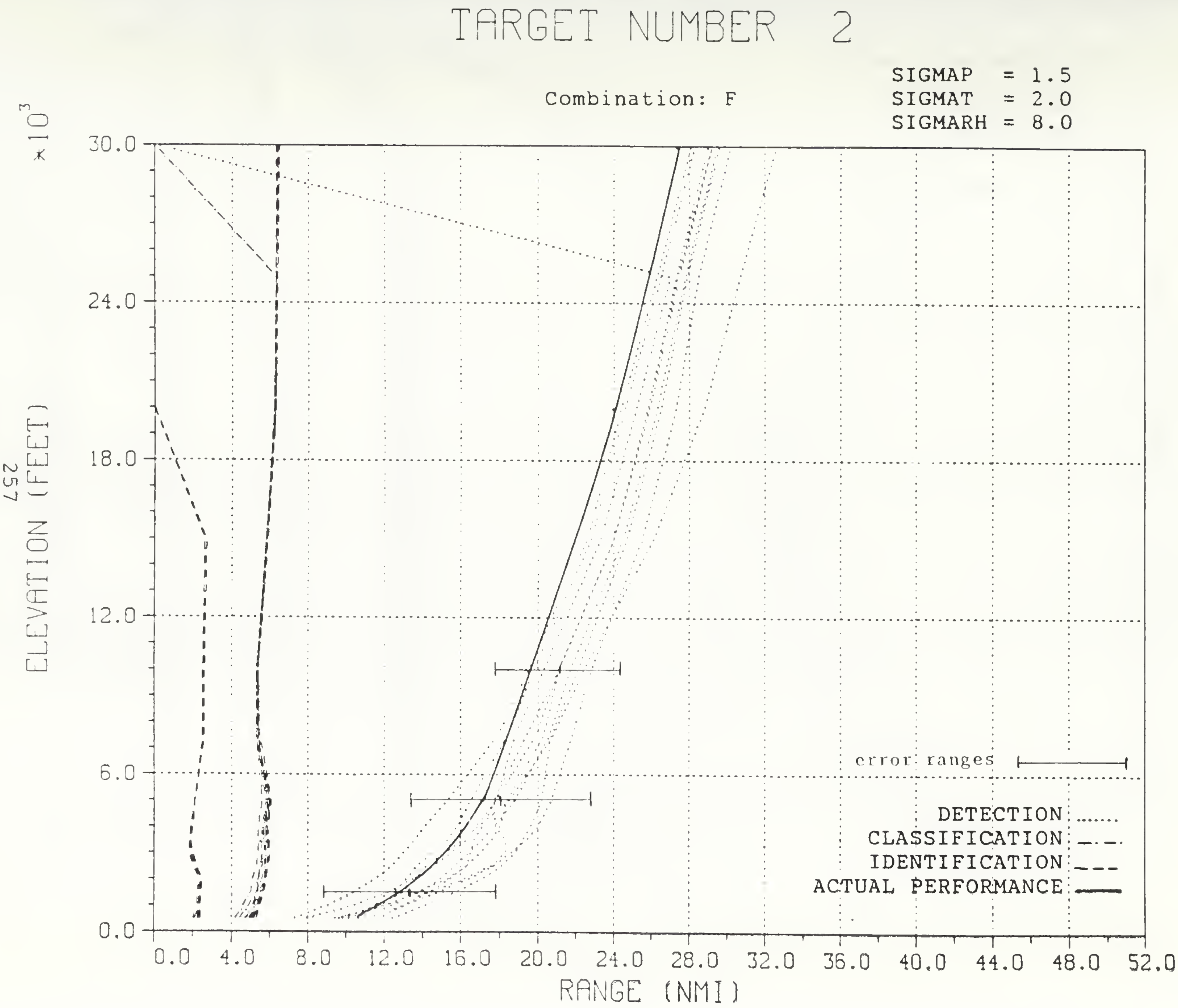

TARGET NUMBER 2
Combination: E
SIGMAP = 1.5
SIGMAT = 2.0
SIGMARH = 8.0
error ranges
DETECTION
CLASSIFICATION
IDENTIFICATION
ACTUAL PERFORMANCE
RANGE (NMI)
ELEVATION (FEET)
$\times 10^3$
0.0
4.0
8.0
12.0
16.0
20.0
24.0
28.0
32.0
36.0
40.0
44.0
48.0
52.0
0.0
6.0
12.0
18.0
24.0
30.0


TARGET NUMBER 3
Combination: E
SIGMAP = 1.5
SIGMAT = 2.0
SIGMARH = 8.0
$\times 10^3$
ELEVATION (FEET)
30.0
24.0
18.0
12.0
6.0
0.0
0.0
4.0
8.0
12.0
16.0
20.0
24.0
28.0
32.0
36.0
40.0
44.0
48.0
52.0
RANGE (NMI)
error ranges
DETECTION
CLASSIFICATION
IDENTIFICATION
ACTUAL PERFORMANCE

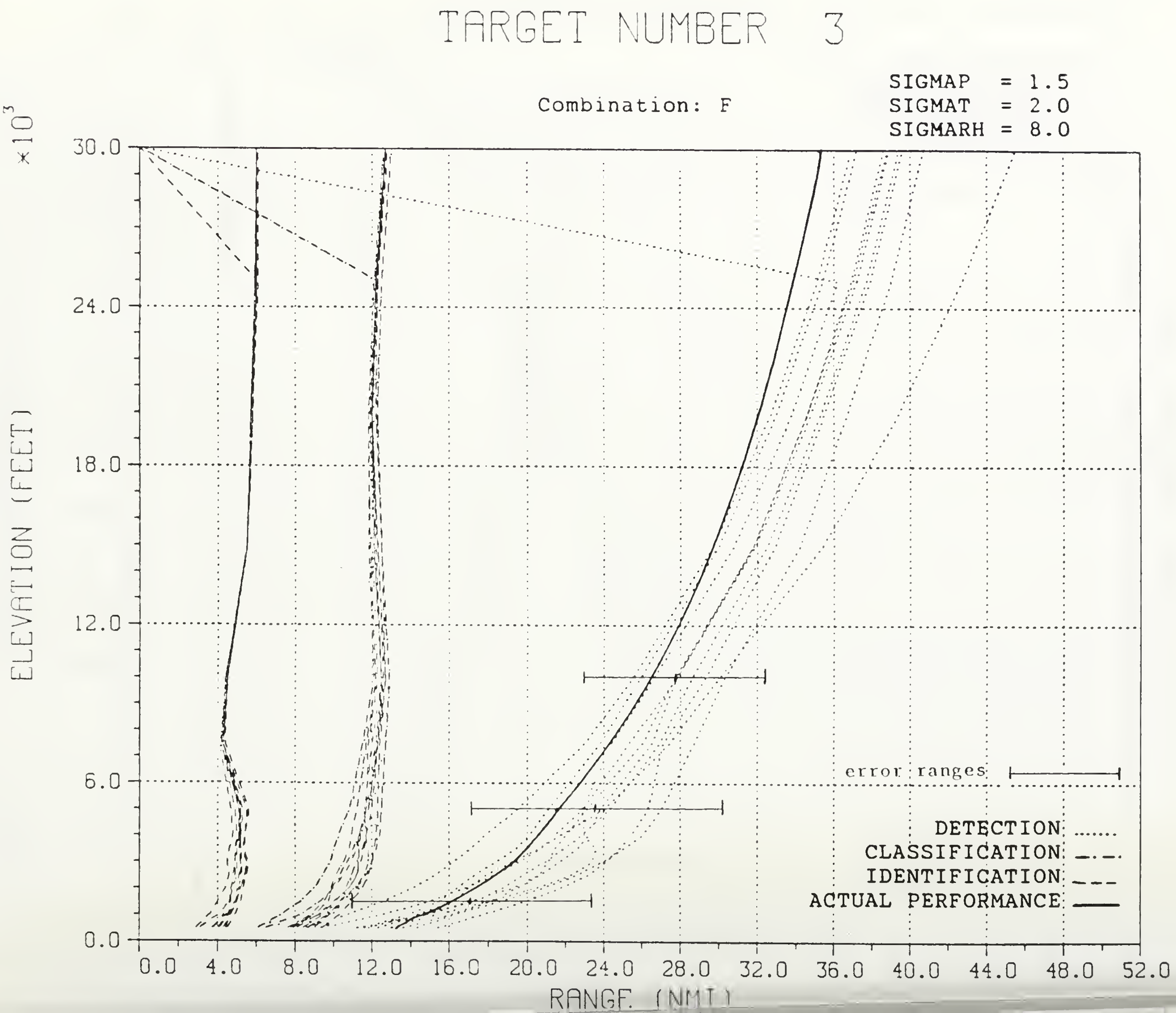
TARGET NUMBER 4

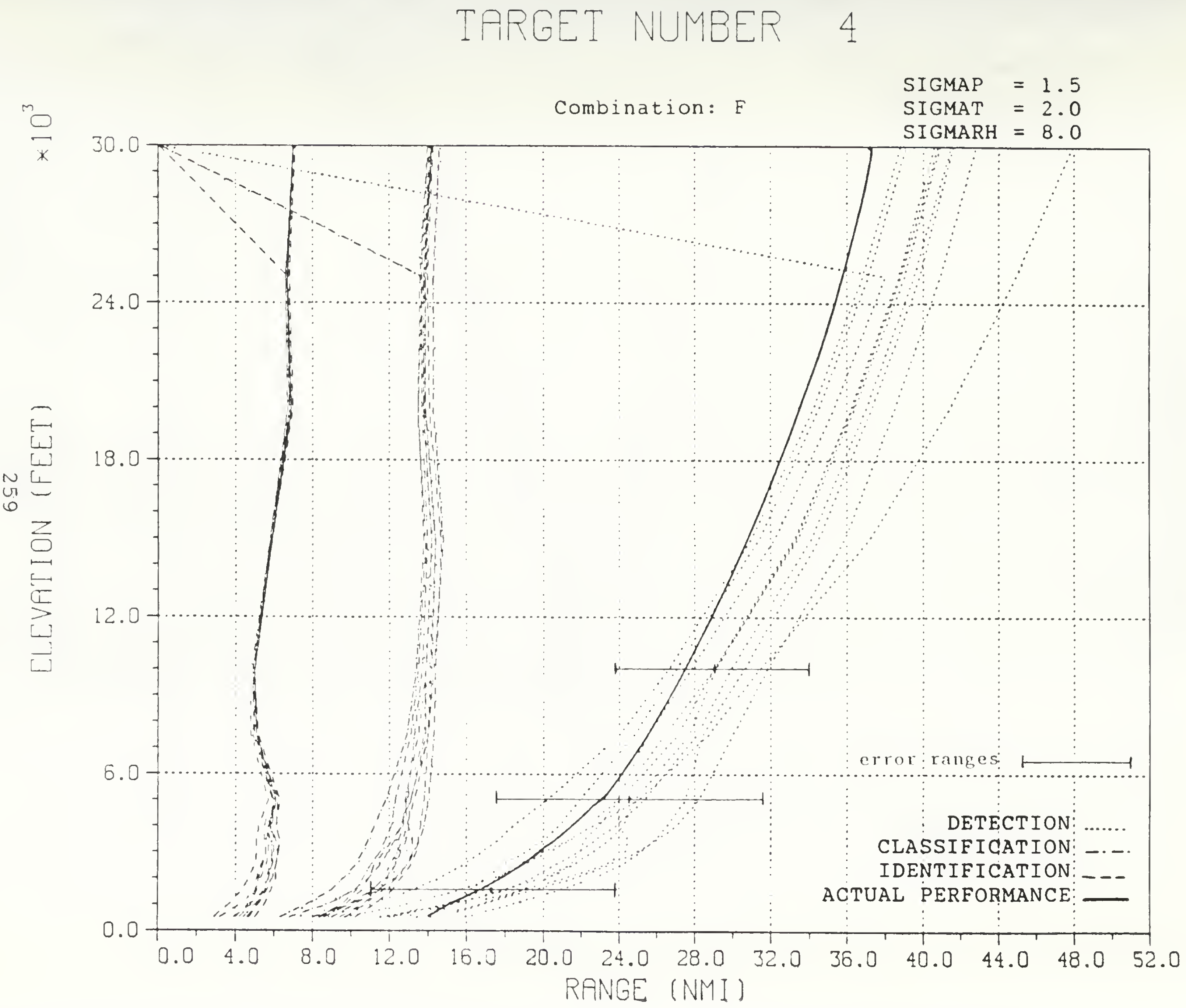



TARGET NUMBER 1
Combination: F
SIGMAP = 1.5
SIGMAT = 2.0
SIGMARH = 8.0
INPUT RADIOSONDE PROFILE: CAL 5
ELEVATION (FEET)
*10^3
30.0
24.0
18.0
12.0
6.0
0.0
RANGE (NMI)
0.0
4.0
8.0
12.0
16.0
20.0
24.0
28.0
32.0
36.0
40.0
44.0
48.0
52.0
error ranges
DETECTION
CLASSIFICATION
IDENTIFICATION
ACTUAL PERFORMANCE



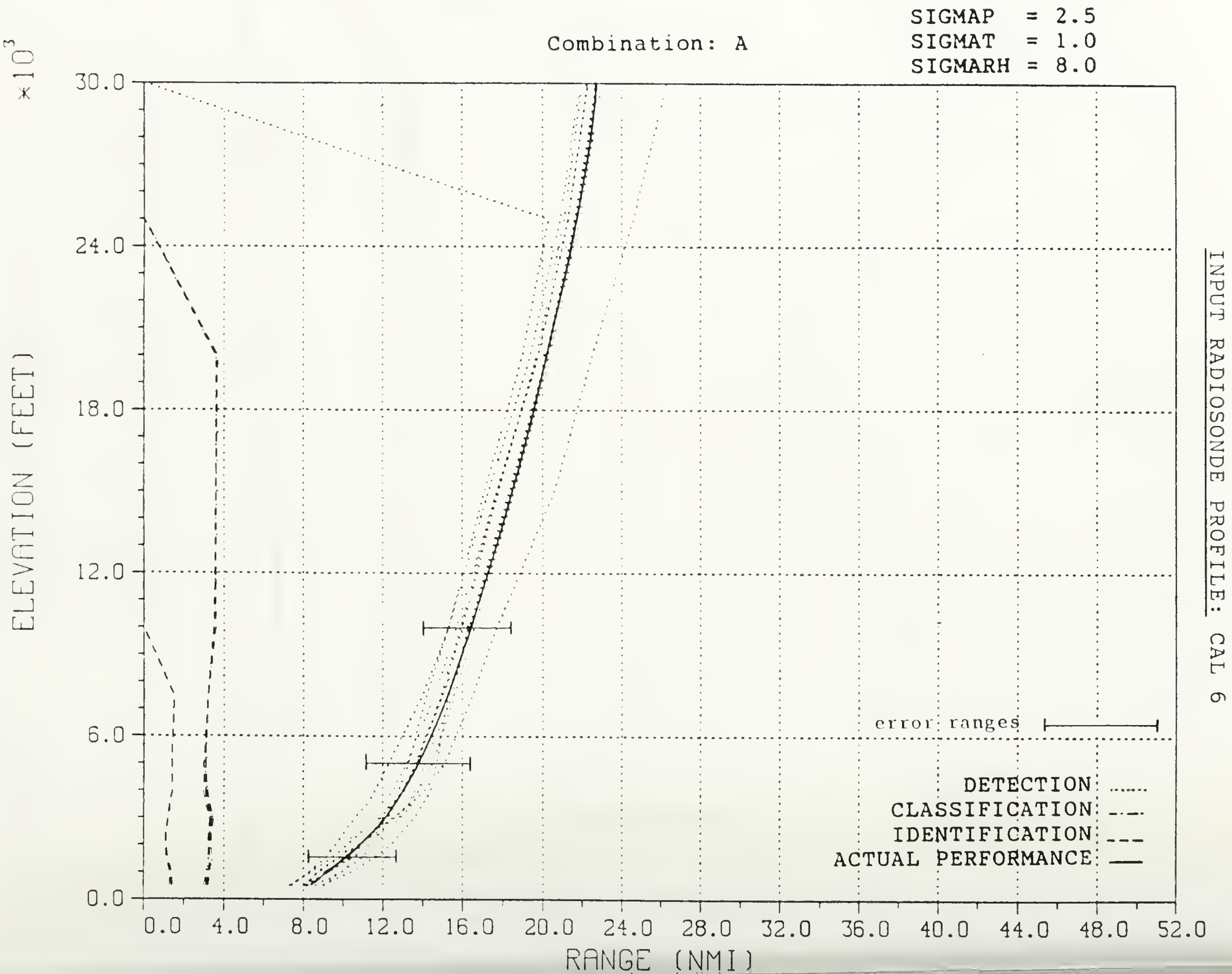
TARGET NUMBER 2
Combination: F
SIGMAP = 1.5
SIGMAT = 2.0
SIGMARH = 8.0
$\times 10^3$
30.0
24.0
18.0
12.0
6.0
0.0
ELEVATION (FEET)
0.0
4.0
8.0
12.0
16.0
20.0
24.0
28.0
32.0
36.0
40.0
44.0
48.0
52.0
RANGE (NMI)
error ranges
DETECTION
CLASSIFICATION
IDENTIFICATION
ACTUAL PERFORMANCE

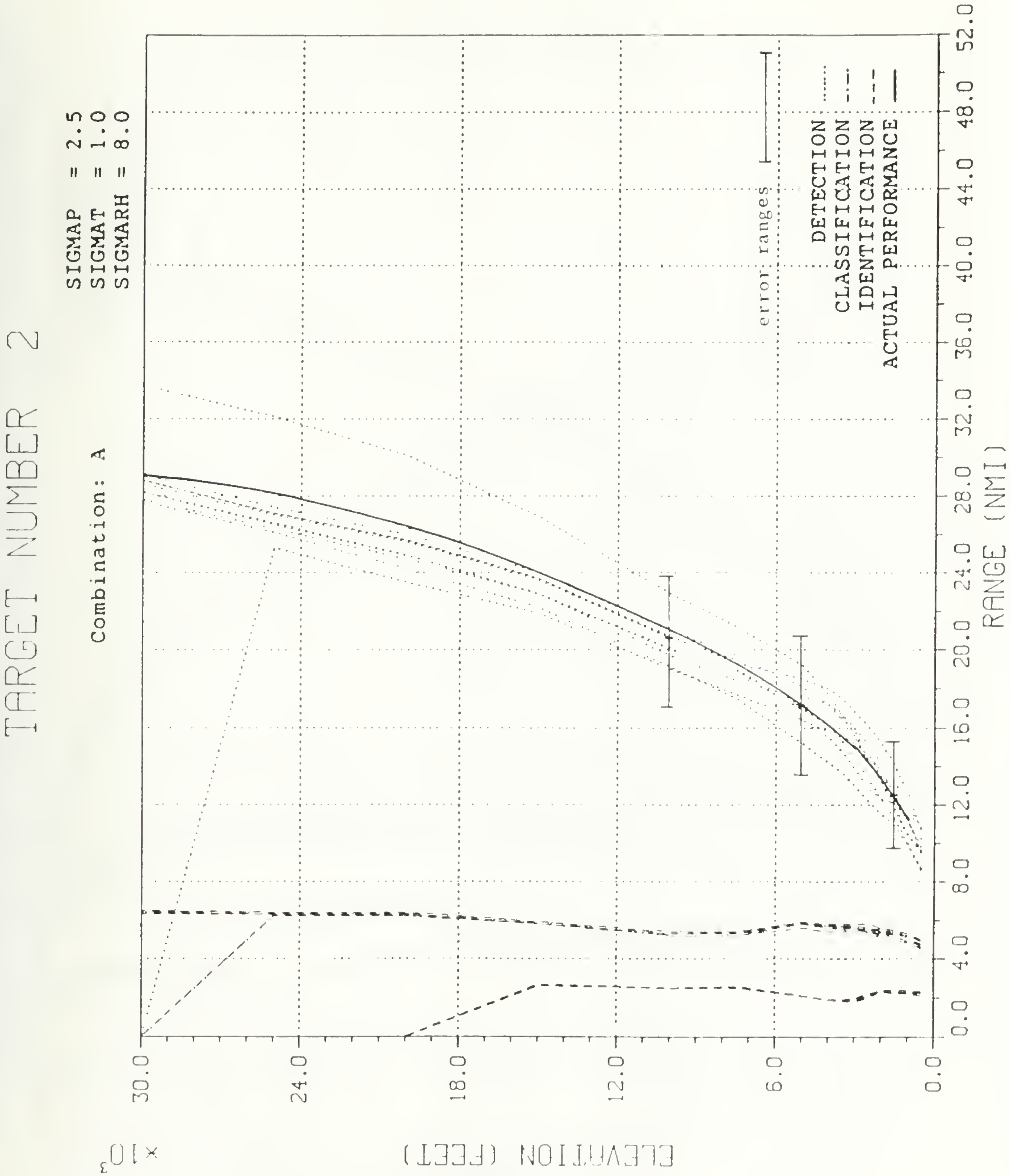

TARGET NUMBER 3
Combination: F
SIGMAP = 1.5
SIGMAT = 2.0
SIGMARH = 8.0
ELEVATION (FEET) $\times 10^3$
RANGE (NMI)
error ranges
DETECTION
CLASSIFICATION
IDENTIFICATION
ACTUAL PERFORMANCE

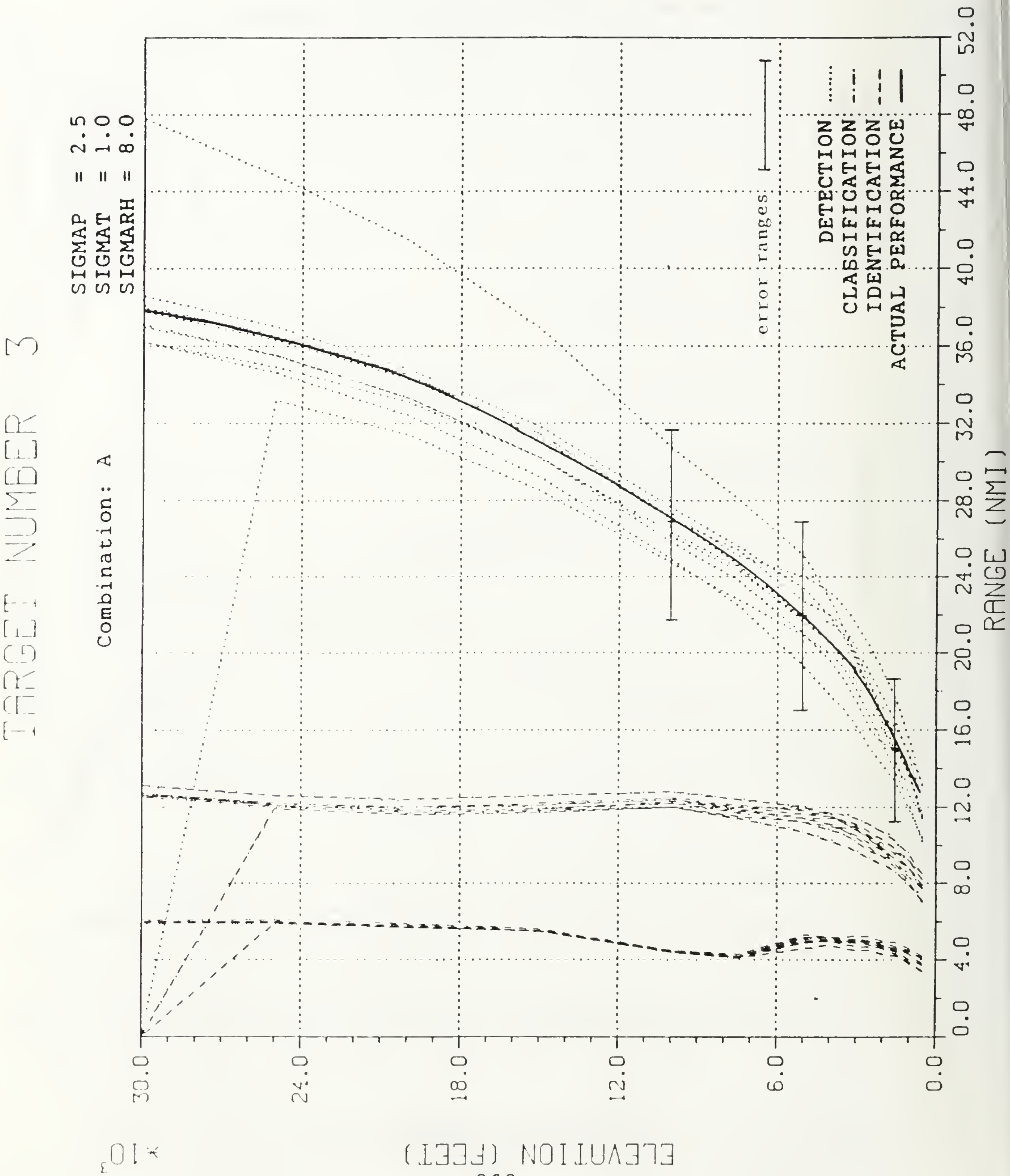


TARGET NUMBER 4
Combination: F
SIGMAP = 1.5
SIGMAT = 2.0
SIGMARH = 8.0
ELEVATION (FEET) $\times 10^3$
30.0
24.0
18.0
12.0
6.0
0.0
RANGE (NMI)
0.0
4.0
8.0
12.0
16.0
20.0
24.0
28.0
32.0
36.0
40.0
44.0
48.0
52.0
error ranges
DETECTION
CLASSIFICATION
IDENTIFICATION
ACTUAL PERFORMANCE

TARGET NUMBER 1

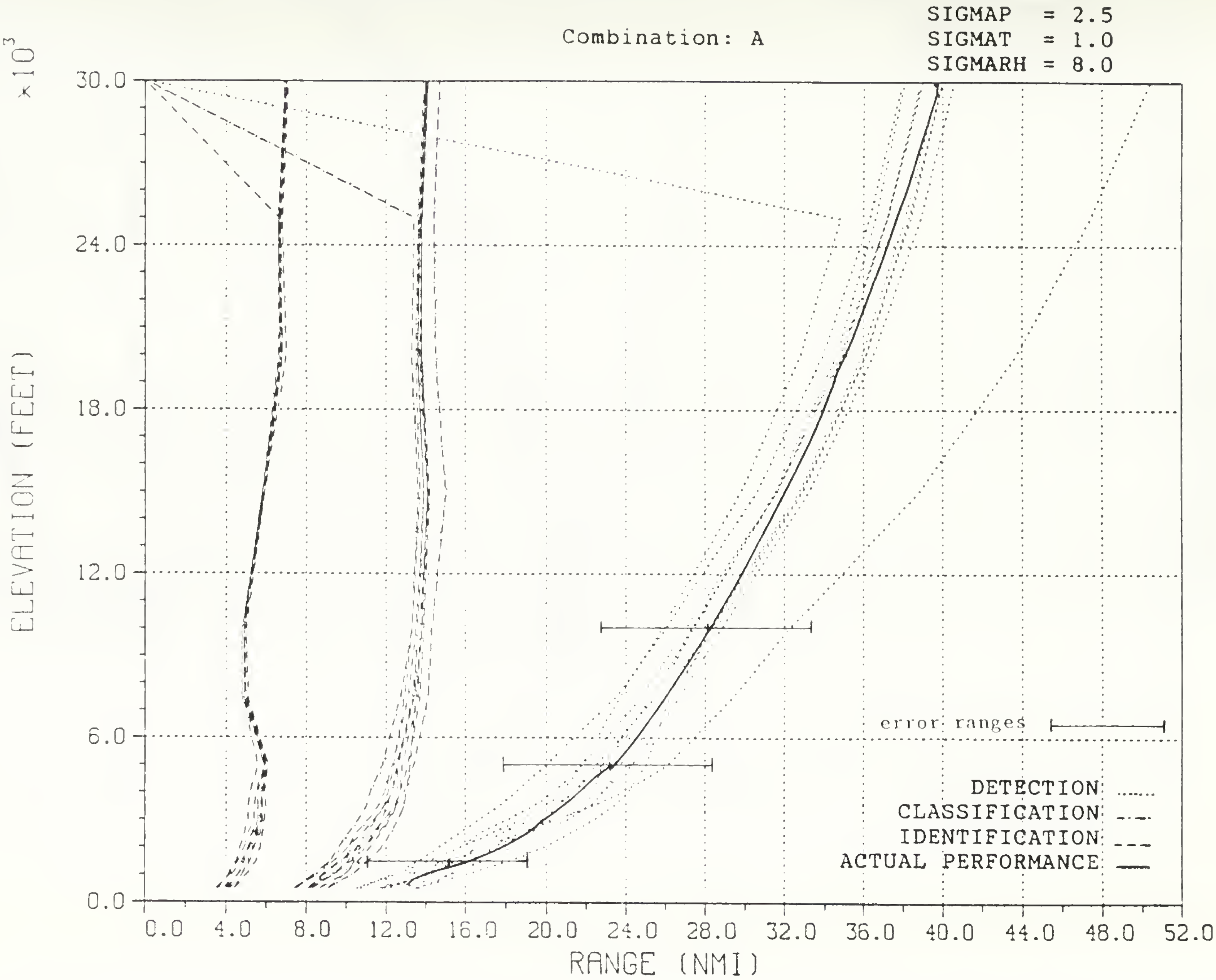



TARGET NUMBER 2
Combination: A
SIGMAP = 2.5
SIGMAT = 1.0
SIGMARH = 8.0
error ranges
DETECTION
CLASSIFICATION
IDENTIFICATION
ACTUAL PERFORMANCE
RANGE (NMI)
ELEVATION (FEET)
×10³

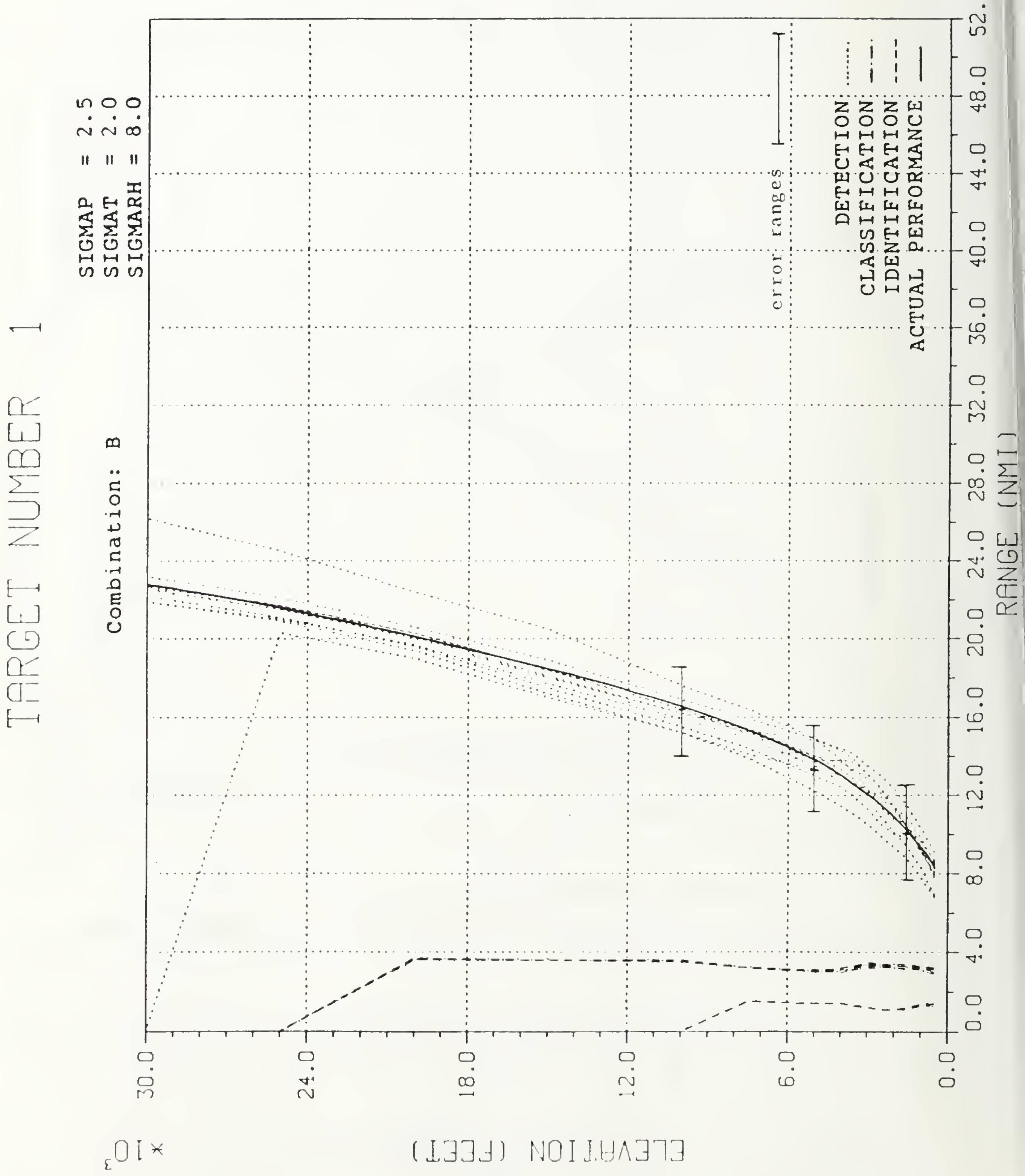


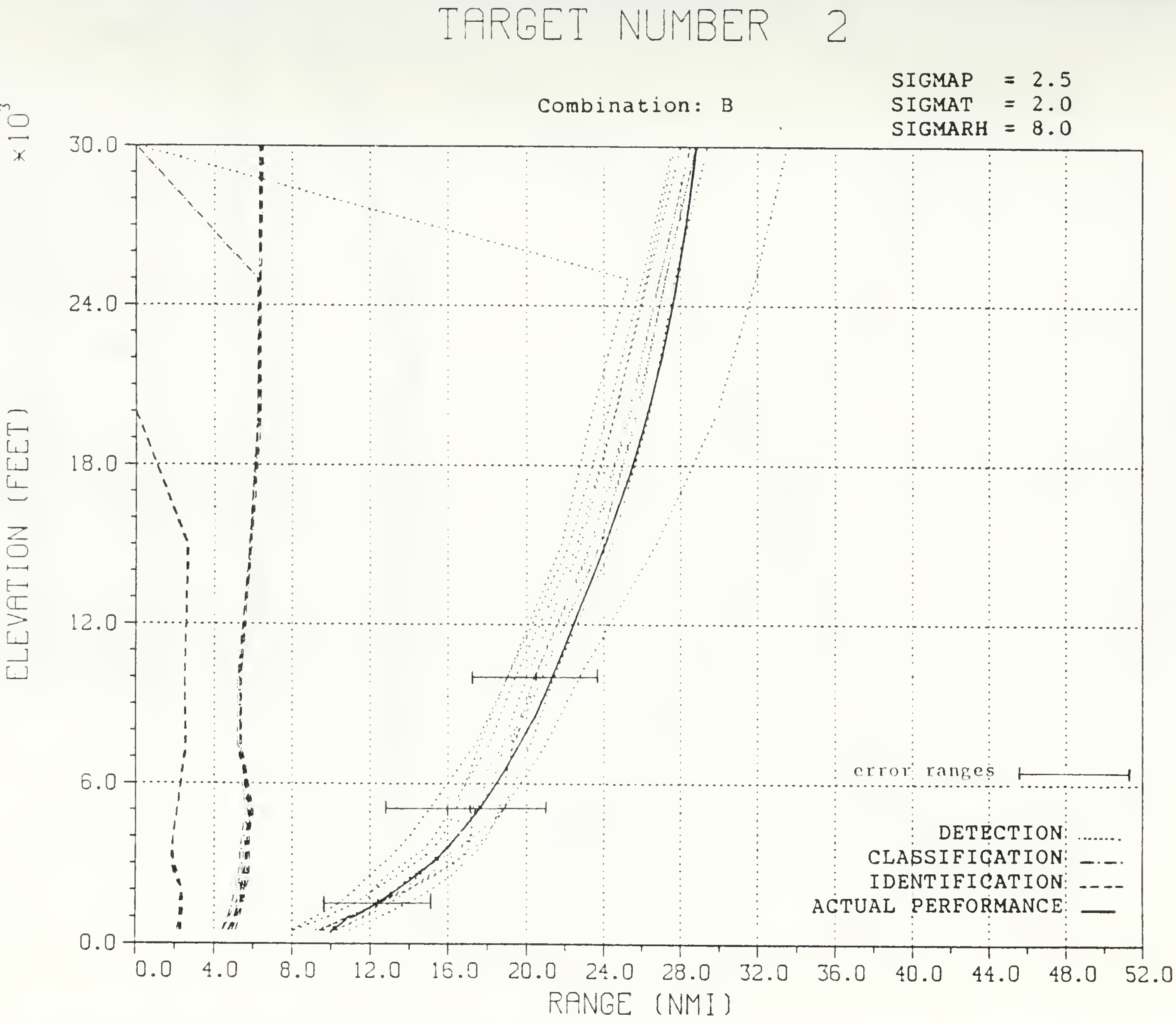
TARGET NUMBER 3
Combination: A
SIGMAP = 2.5
SIGMAT = 1.0
SIGMARH = 8.0
error ranges
DETECTION
CLASSIFICATION
IDENTIFICATION
ACTUAL PERFORMANCE
RANGE (NMI)
ELEVATION (FEET)
$\times 10^3$
0.0
4.0
8.0
12.0
16.0
20.0
24.0
28.0
32.0
36.0
40.0
44.0
48.0
52.0
0.0
6.0
12.0
18.0
24.0
30.0

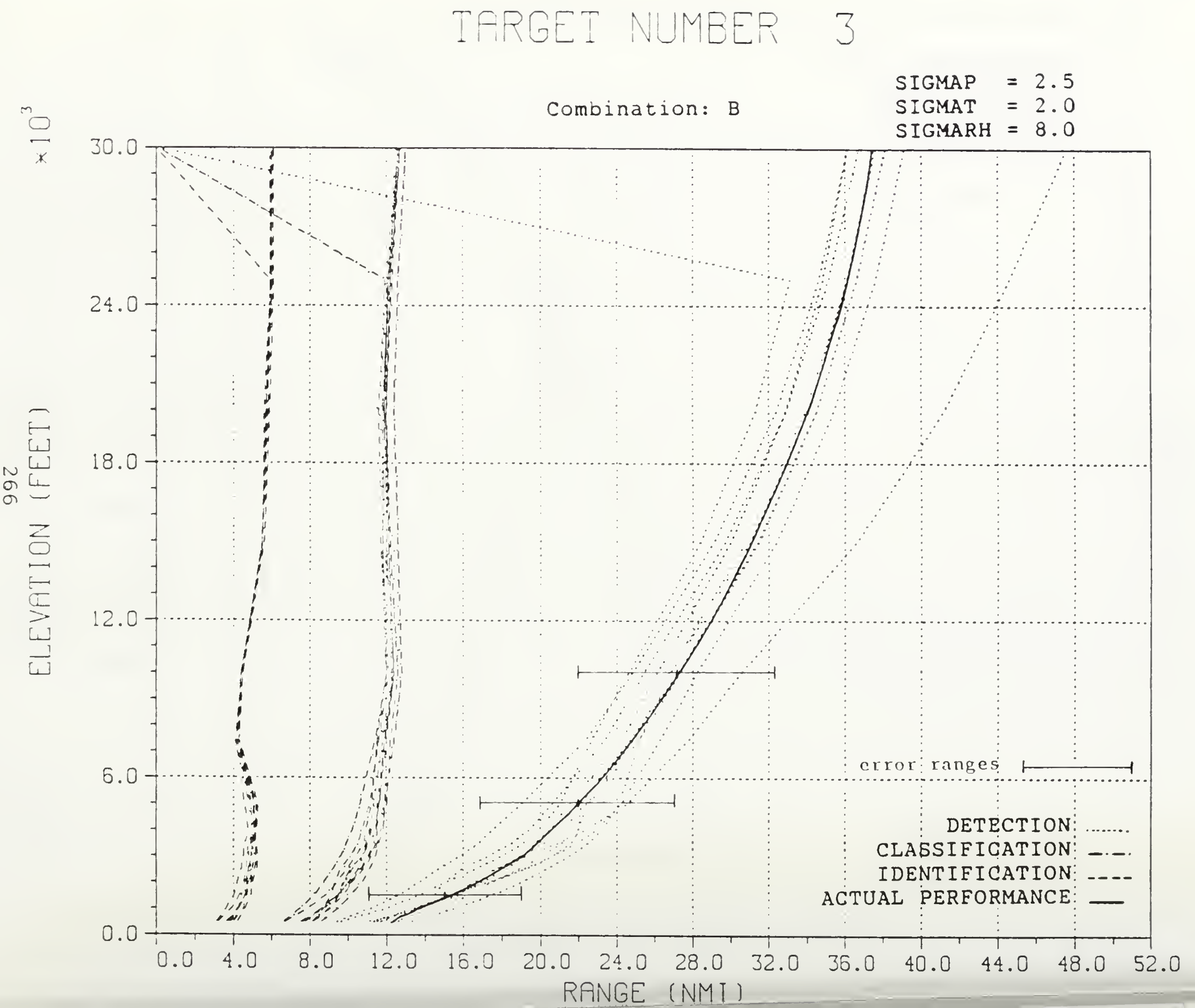
TARGET NUMBER 4



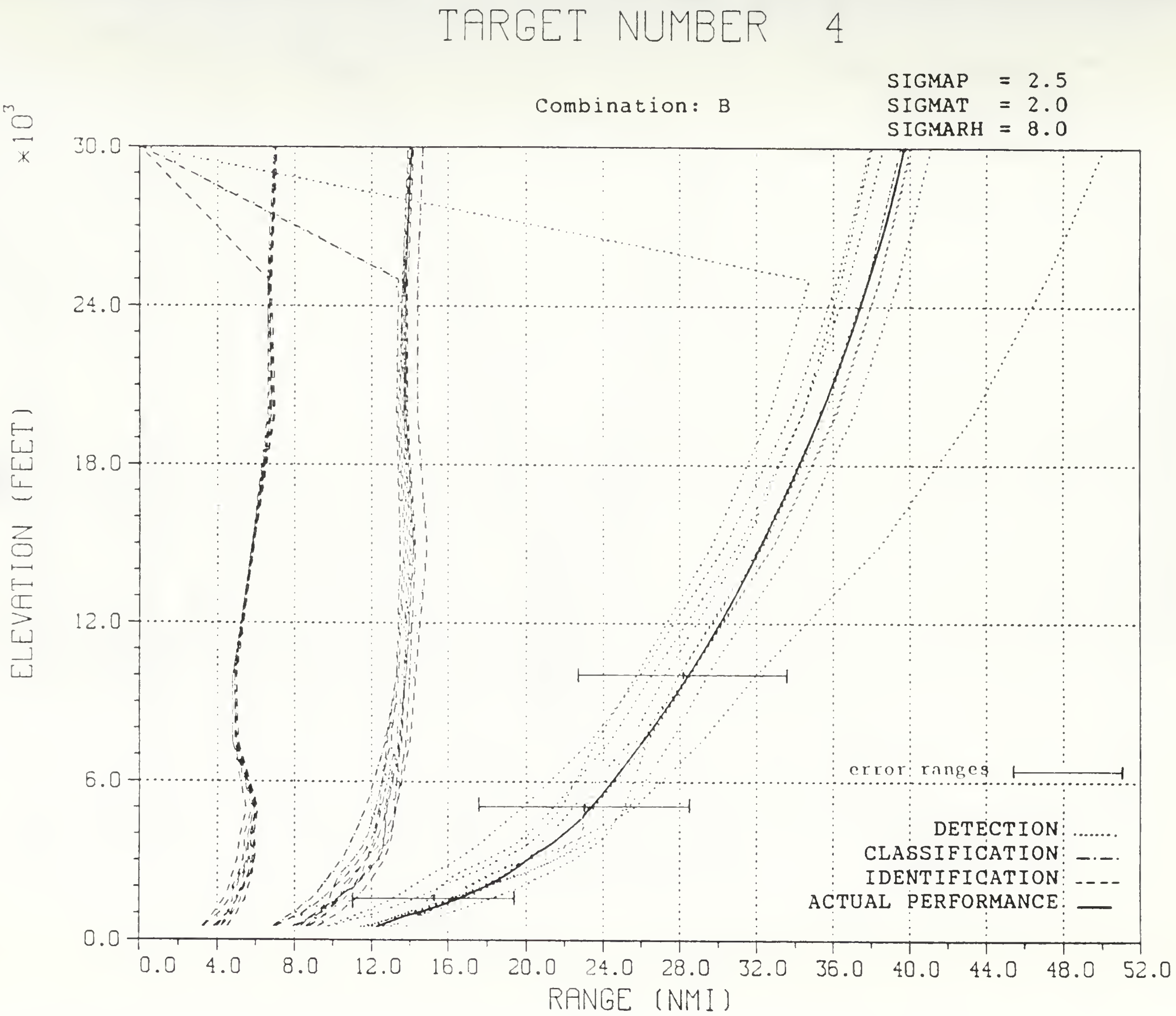
INPUT RADIOSONDE PROFILE: CAL 6



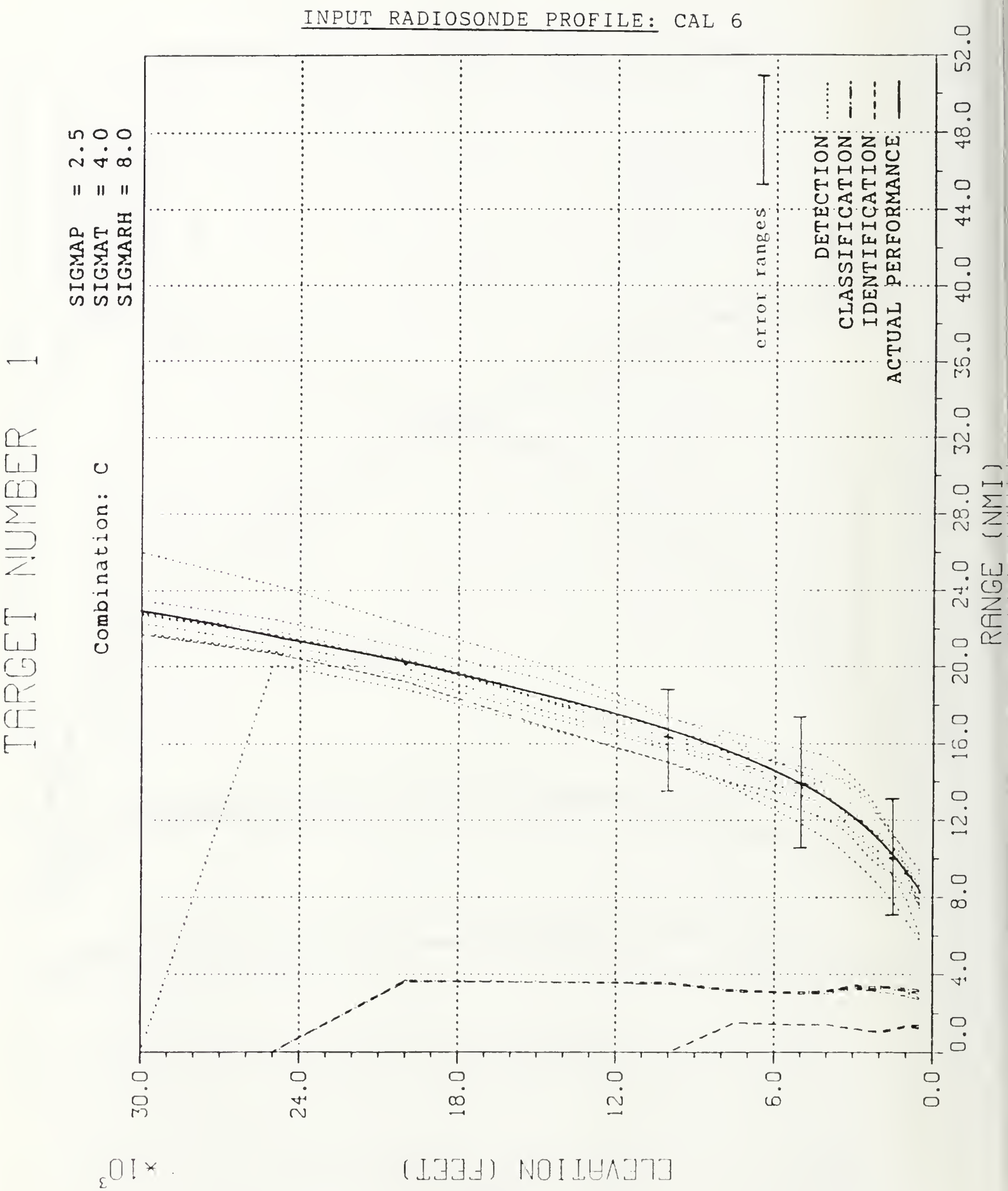

TARGET NUMBER 2
Combination: B
SIGMAP = 2.5
SIGMAT = 2.0
SIGMARH = 8.0
error ranges
DETECTION
CLASSIFICATION
IDENTIFICATION
ACTUAL PERFORMANCE
ELEVATION (FEET)
×10³
30.0
24.0
18.0
12.0
6.0
0.0
RANGE (NMI)
0.0 4.0 8.0 12.0 16.0 20.0 24.0 28.0 32.0 36.0 40.0 44.0 48.0 52.0



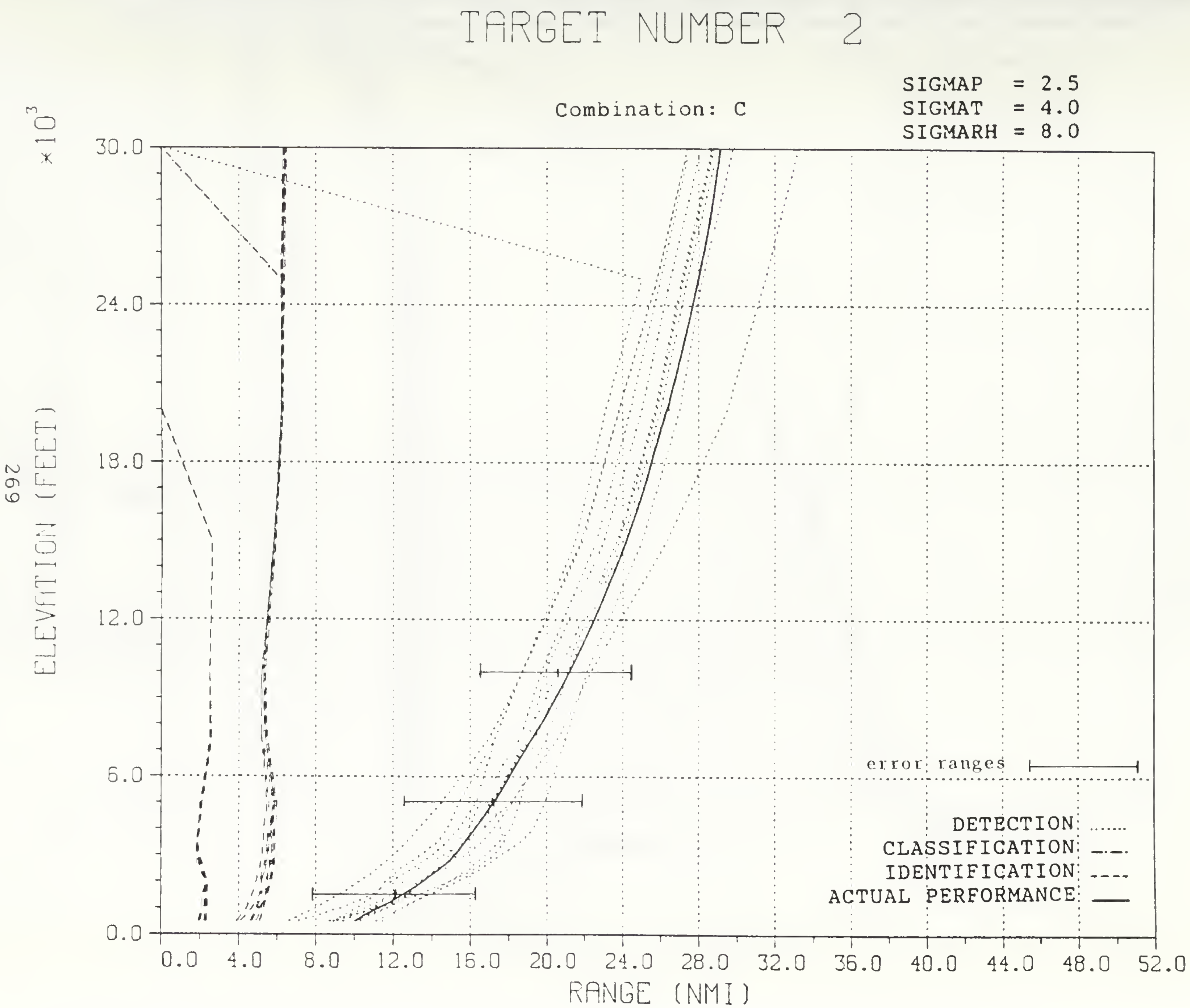
TARGET NUMBER 3
Combination: B
SIGMAP = 2.5
SIGMAT = 2.0
SIGMARH = 8.0
$\times 10^3$
ELEVATION (FEET)
30.0
24.0
18.0
12.0
6.0
0.0
0.0
4.0
8.0
12.0
16.0
20.0
24.0
28.0
32.0
36.0
40.0
44.0
48.0
52.0
RANGE (NMI)
error ranges
DETECTION
CLASSIFICATION
IDENTIFICATION
ACTUAL PERFORMANCE



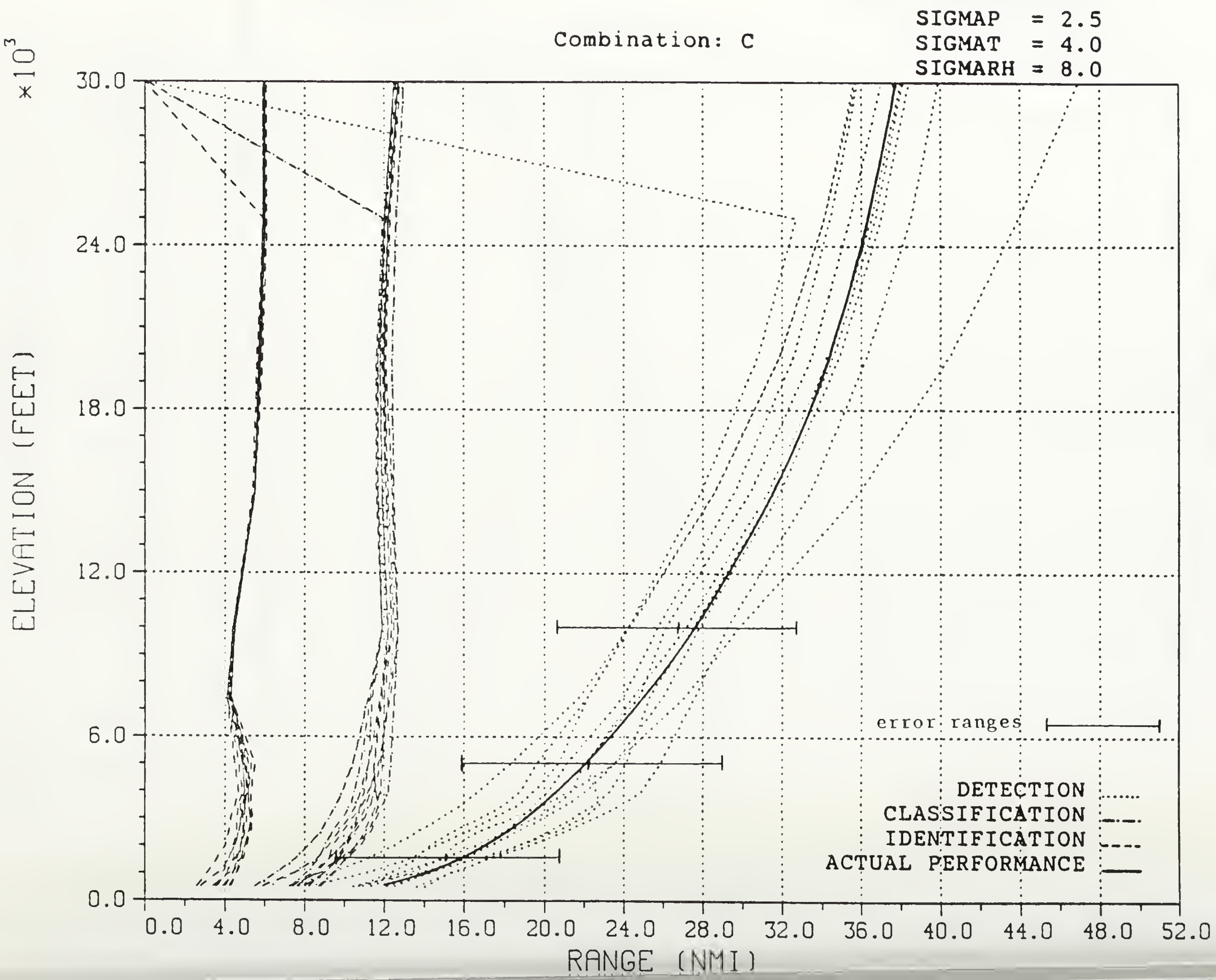
TARGET NUMBER 4
Combination: B
SIGMAP = 2.5
SIGMAT = 2.0
SIGMARH = 8.0
$\times 10^3$
ELEVATION (FEET)
30.0
24.0
18.0
12.0
6.0
0.0
RANGE (NMI)
0.0
4.0
8.0
12.0
16.0
20.0
24.0
28.0
32.0
36.0
40.0
44.0
48.0
52.0
error ranges
DETECTION
CLASSIFICATION
IDENTIFICATION
ACTUAL PERFORMANCE

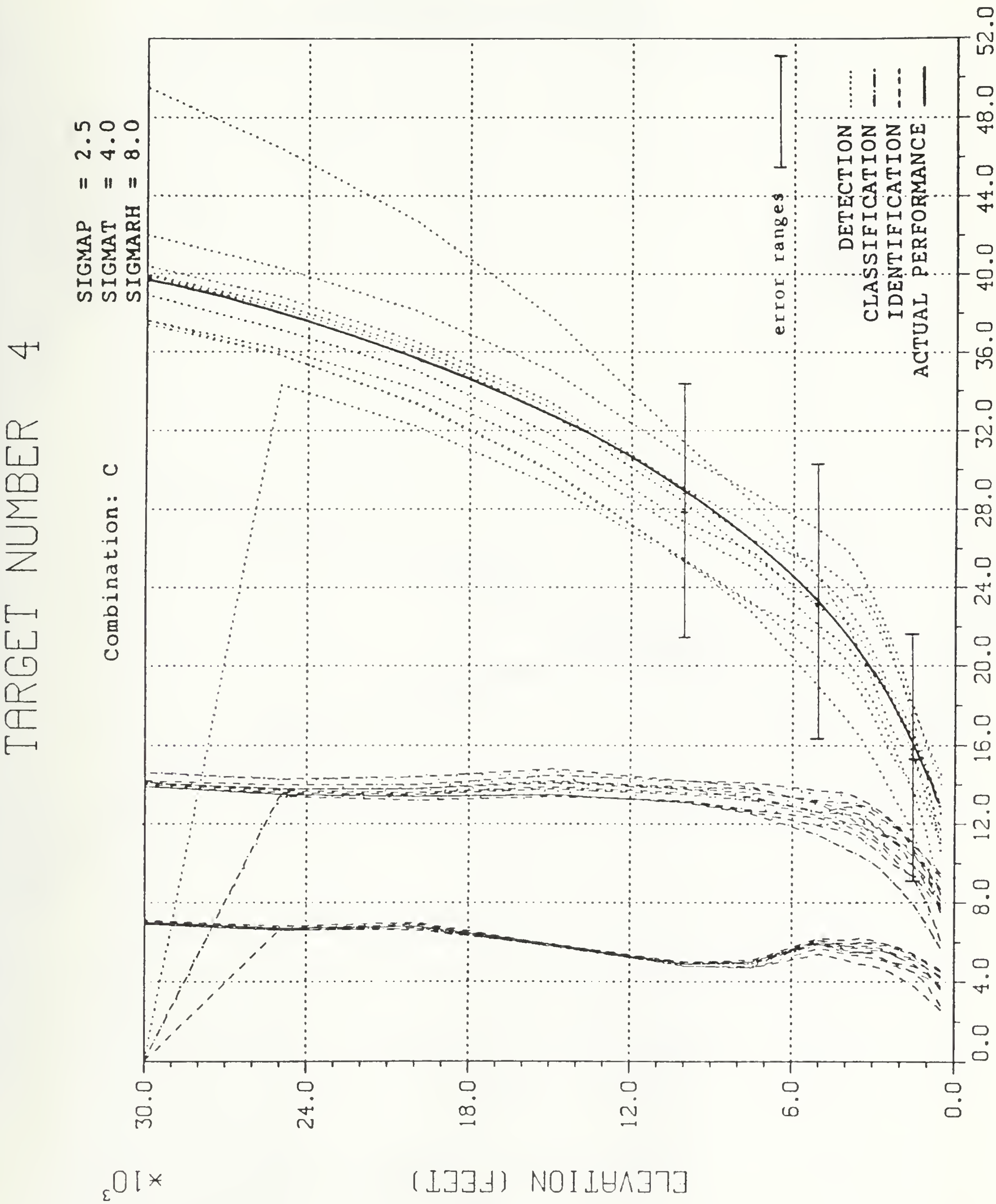


TARGET NUMBER 1
INPUT RADIOSONDE PROFILE: CAL 6
Combination: C
SIGMAP = 2.5
SIGMAT = 4.0
SIGMARH = 8.0
error ranges
DETECTION
CLASSIFICATION
IDENTIFICATION
ACTUAL PERFORMANCE
RANGE (NMI)
0.0
4.0
8.0
12.0
16.0
20.0
24.0
28.0
32.0
36.0
40.0
44.0
48.0
52.0
ELEVATION (FEET)
×10³
0.0
6.0
12.0
18.0
24.0
30.0

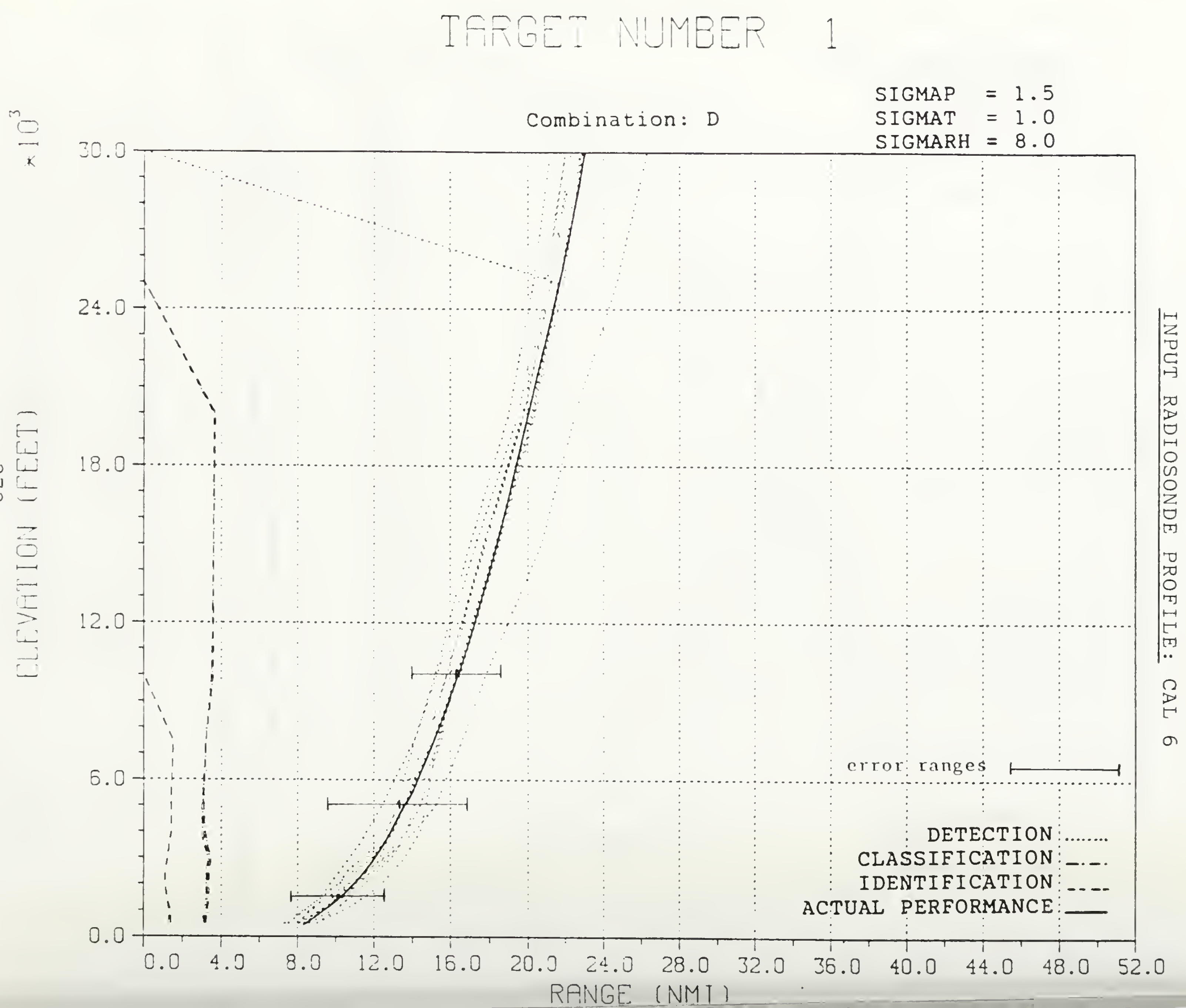

TARGET NUMBER 2
Combination: C
SIGMAP = 2.5
SIGMAT = 4.0
SIGMARH = 8.0
error ranges
DETECTION
CLASSIFICATION
IDENTIFICATION
ACTUAL PERFORMANCE
ELEVATION (FEET)
$\times 10^3$
RANGE (NMI)
0.0
4.0
8.0
12.0
16.0
20.0
24.0
28.0
32.0
36.0
40.0
44.0
48.0
52.0
6.0
18.0
30.0

TARGET NUMBER 3

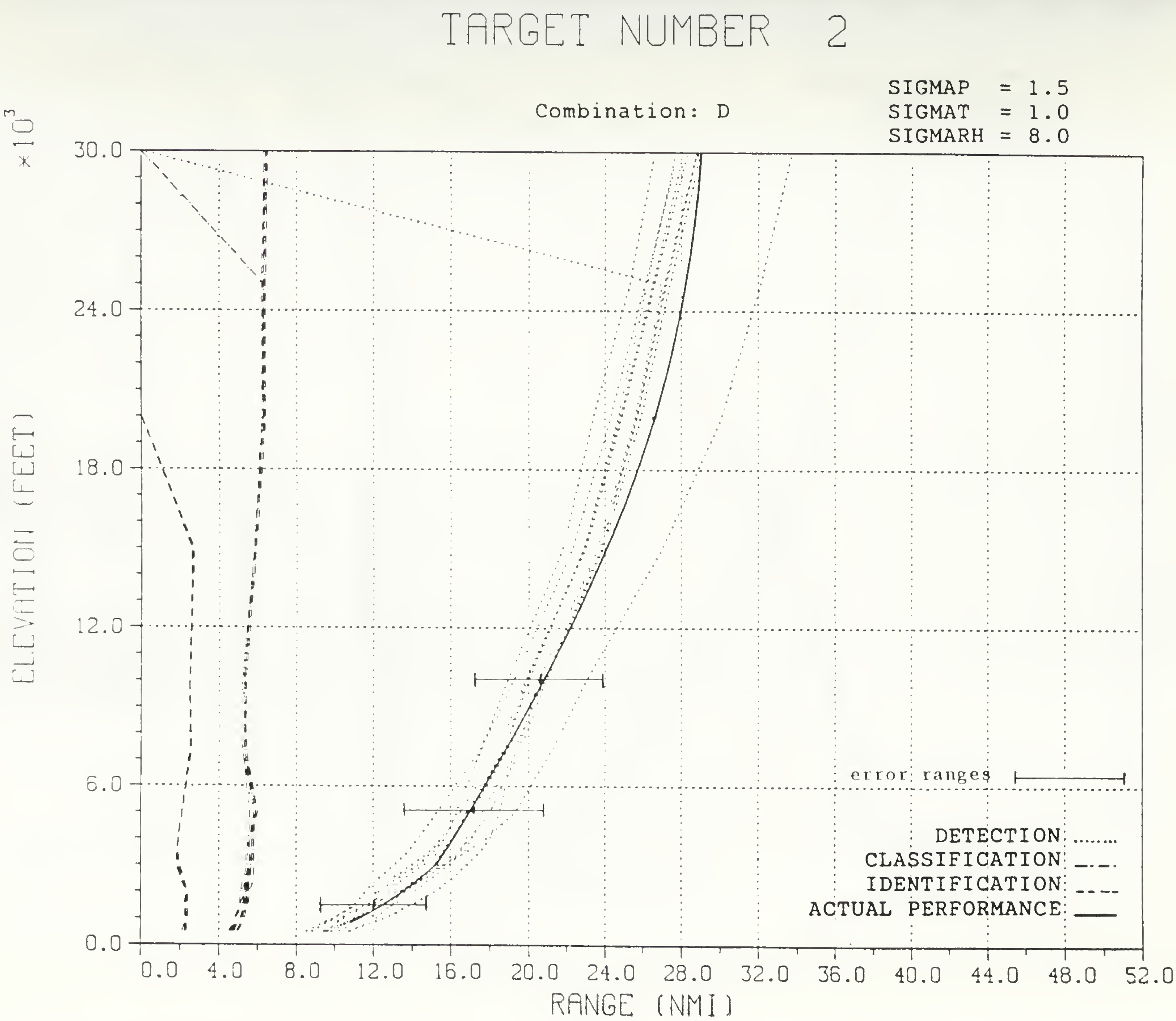




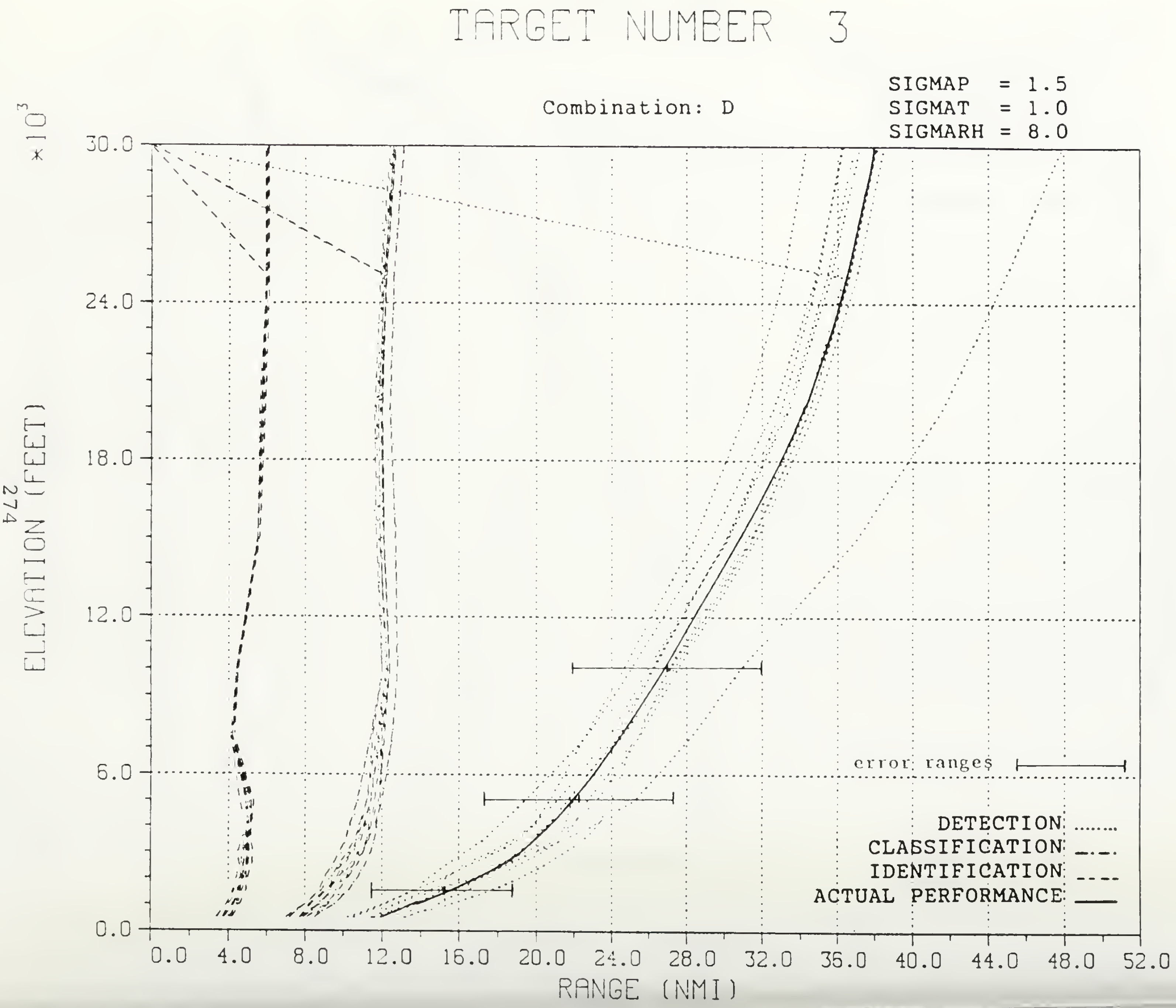
TARGET NUMBER 4
Combination: C
SIGMAP = 2.5
SIGMAT = 4.0
SIGMARH = 8.0
error ranges
DETECTION
CLASSIFICATION
IDENTIFICATION
ACTUAL PERFORMANCE
RANGE (NMI)
0.0 4.0 8.0 12.0 16.0 20.0 24.0 28.0 32.0 36.0 40.0 44.0 48.0 52.0
ELEVATION (FEET)
×10³
0.0 6.0 12.0 18.0 24.0 30.0



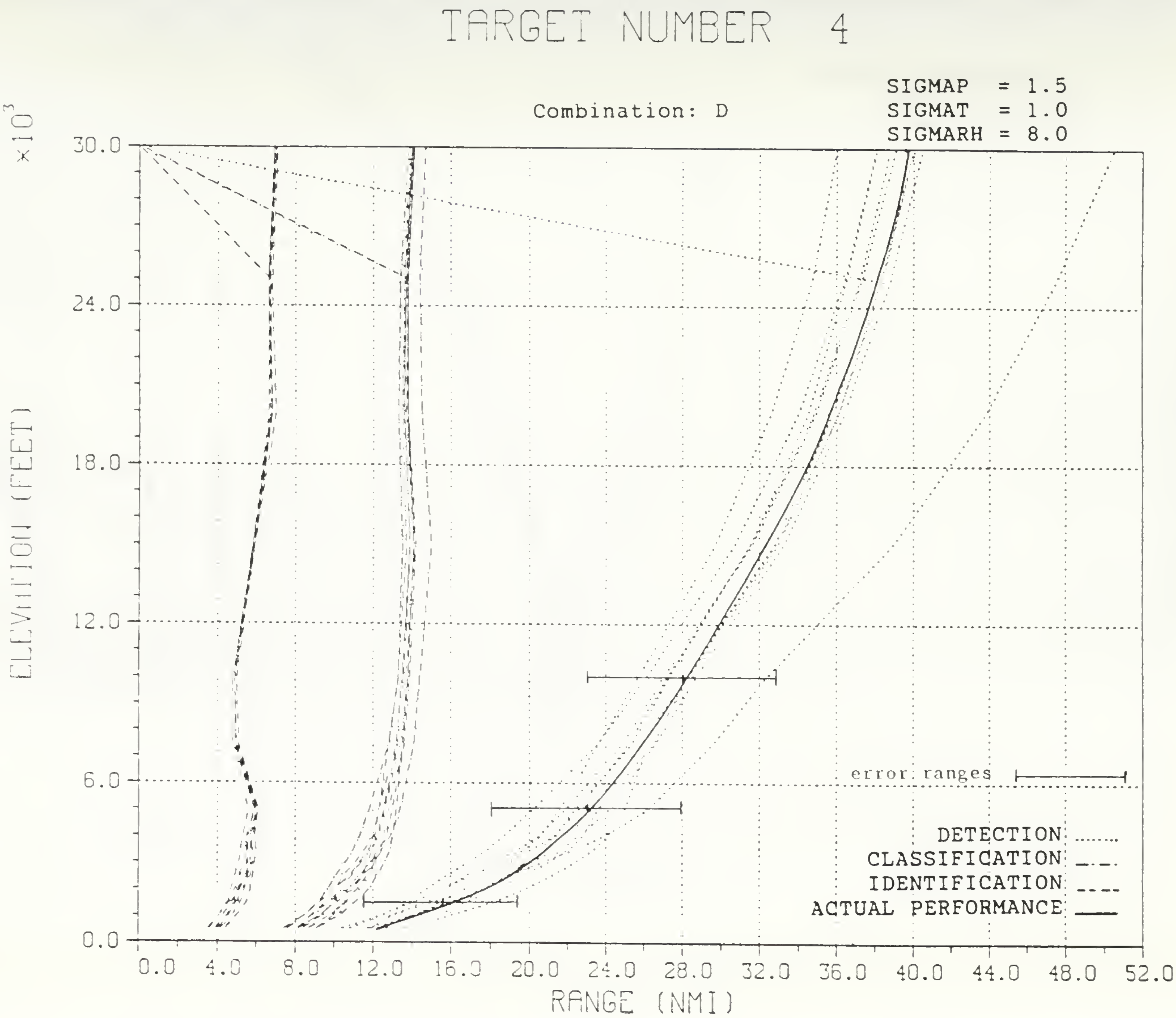
TARGET NUMBER 1
Combination: D
SIGMAP = 1.5
SIGMAT = 1.0
SIGMARH = 8.0
INPUT RADIOSONDE PROFILE: CAL 6
ELEVATION (FEET)
$\times 10^3$
RANGE (NMI)
30.0
24.0
18.0
12.0
6.0
0.0
4.0
8.0
12.0
16.0
20.0
24.0
28.0
32.0
36.0
40.0
44.0
48.0
52.0
error ranges
DETECTION
CLASSIFICATION
IDENTIFICATION
ACTUAL PERFORMANCE

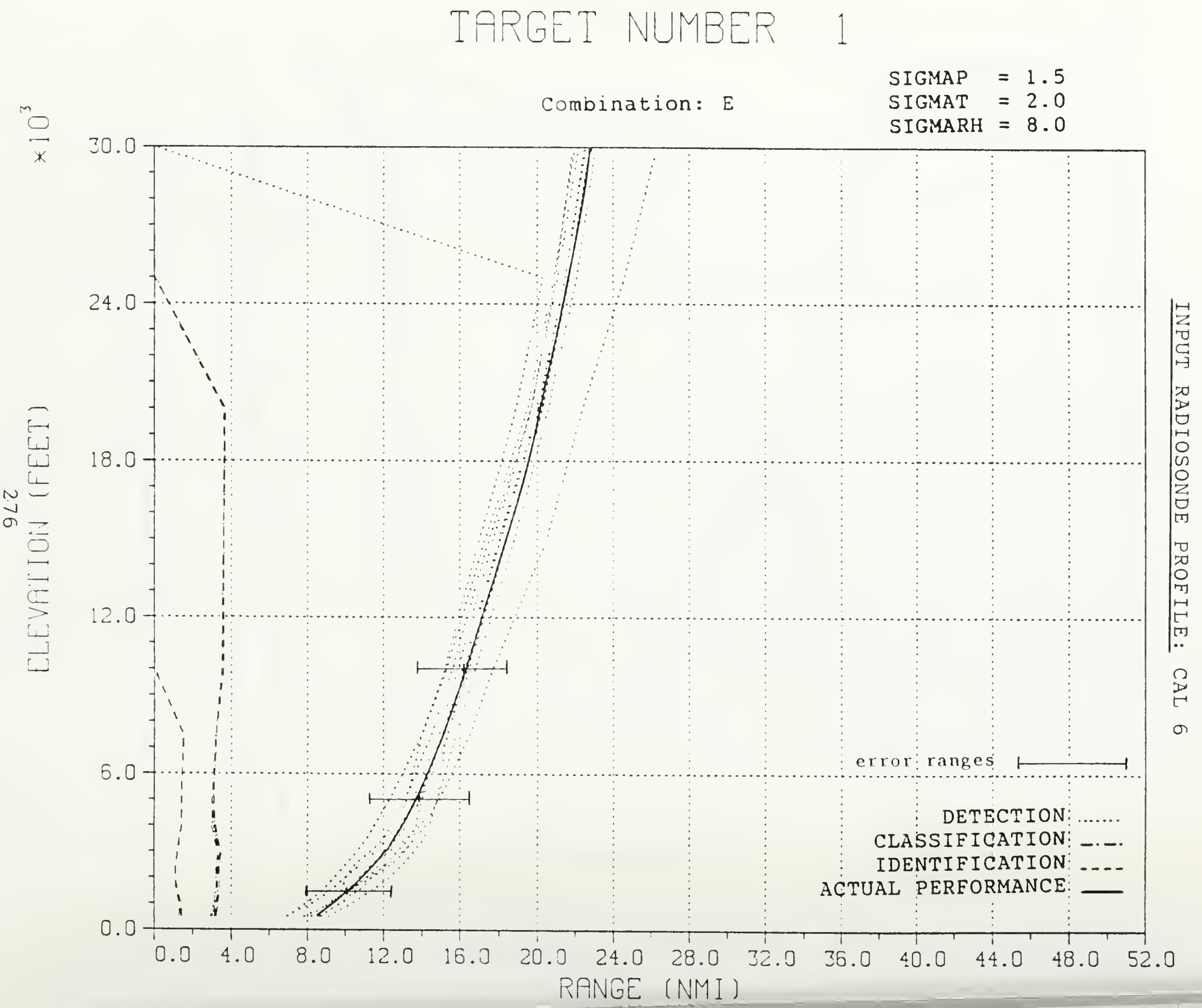


TARGET NUMBER 2
Combination: D
SIGMAP = 1.5
SIGMAT = 1.0
SIGMARH = 8.0
ELEVATION (FEET)
$*10^3$
30.0
24.0
18.0
12.0
6.0
0.0
RANGE (NMI)
0.0
4.0
8.0
12.0
16.0
20.0
24.0
28.0
32.0
36.0
40.0
44.0
48.0
52.0
error ranges
DETECTION
CLASSIFICATION
IDENTIFICATION
ACTUAL PERFORMANCE

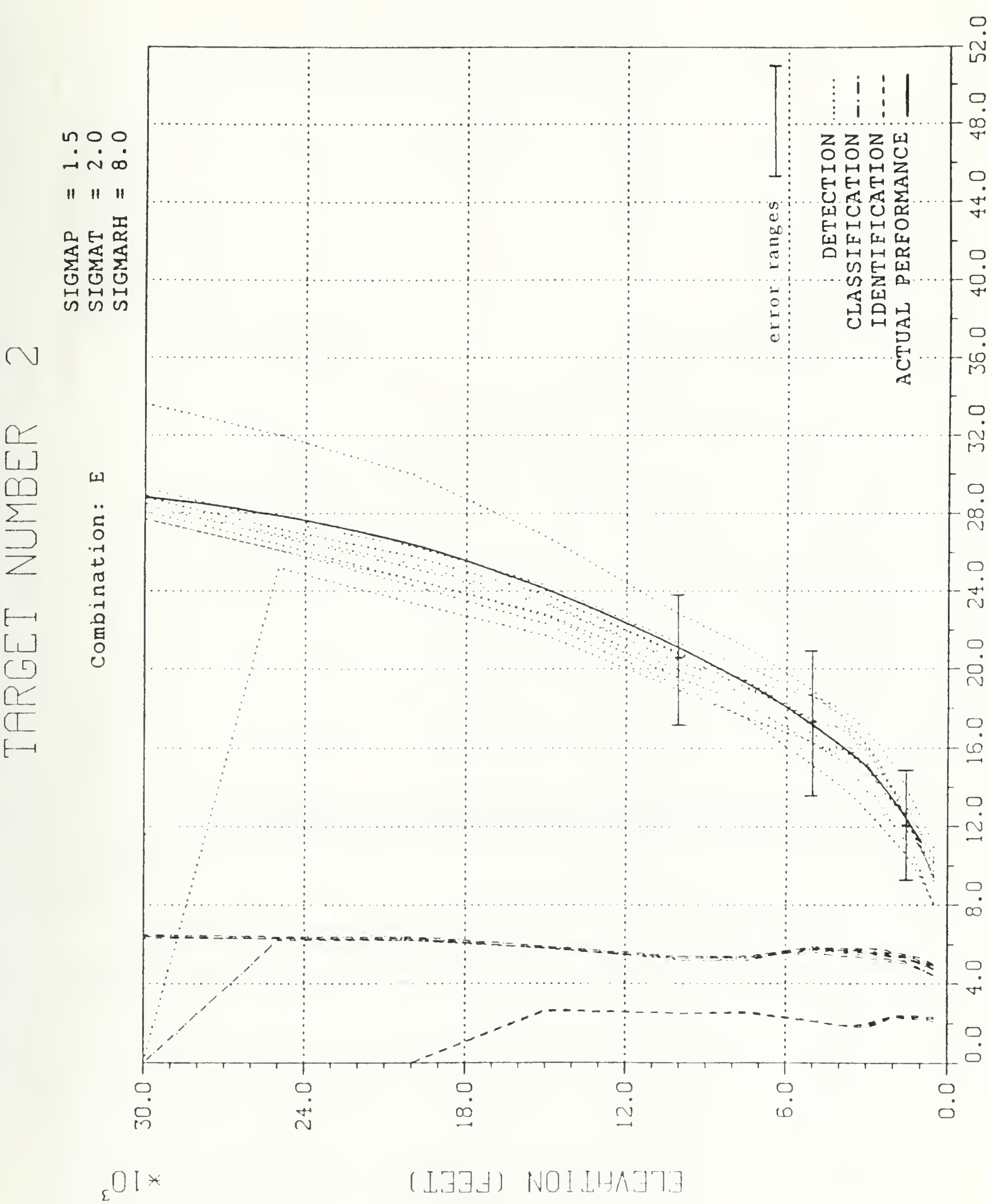


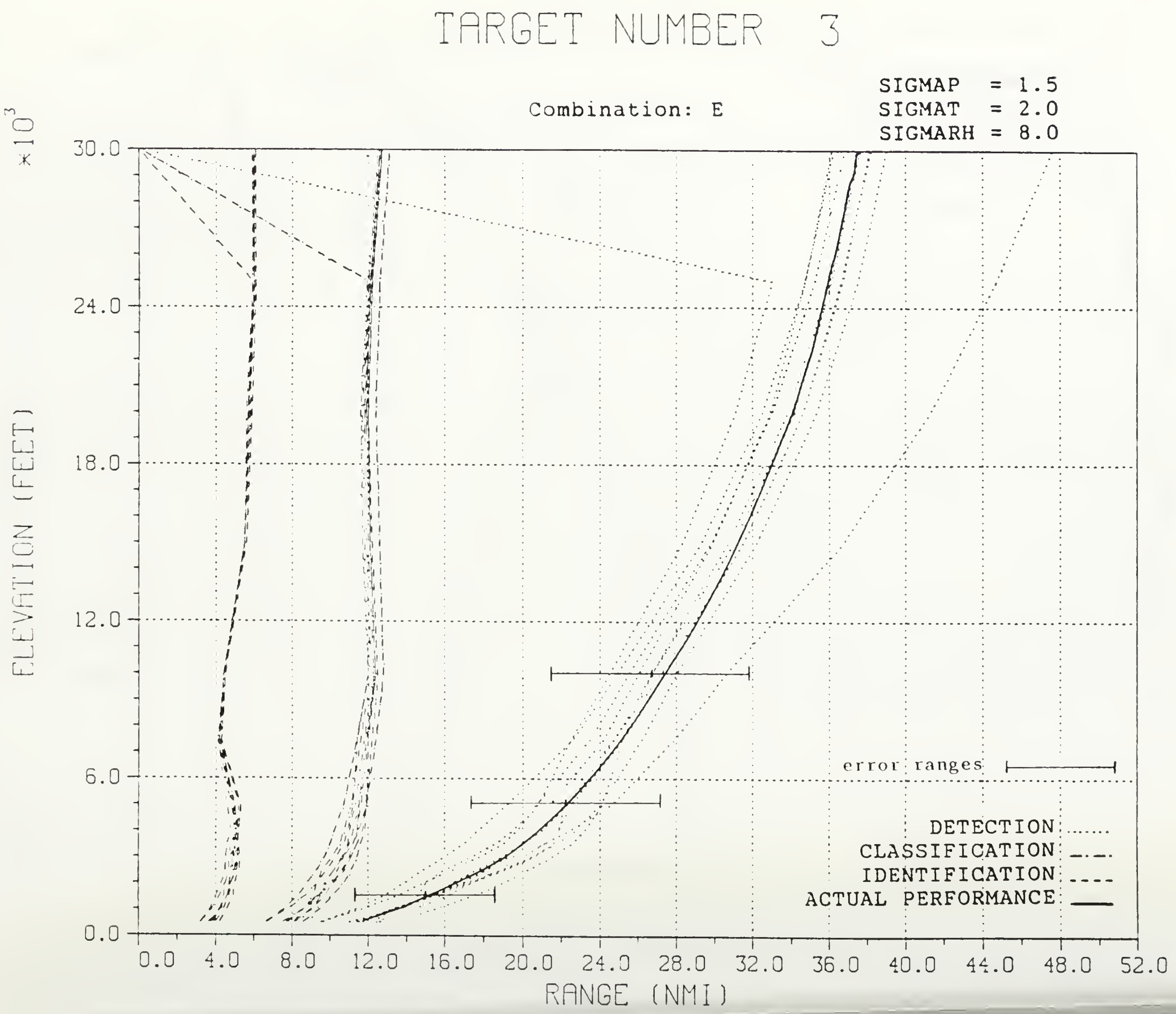
TARGET NUMBER 3
Combination: D
SIGMAP = 1.5
SIGMAT = 1.0
SIGMARH = 8.0
ELEVATION (FEET)
$\times 10^3$
RANGE (NMI)
0.0
6.0
12.0
18.0
24.0
30.0
0.0
4.0
8.0
12.0
16.0
20.0
24.0
28.0
32.0
36.0
40.0
44.0
48.0
52.0
error ranges
DETECTION
CLASSIFICATION
IDENTIFICATION
ACTUAL PERFORMANCE

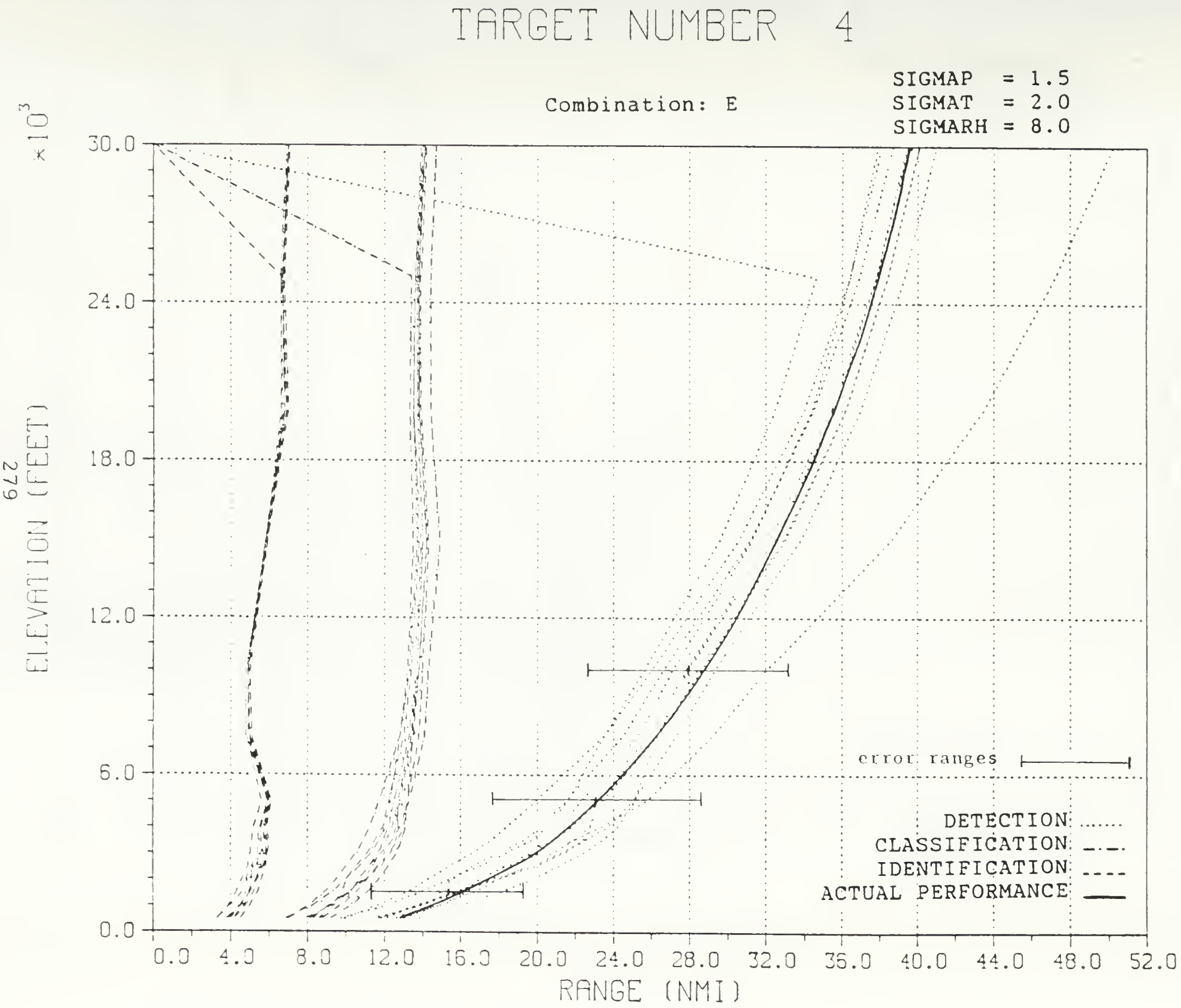

TARGET NUMBER 4
Combination: D
SIGMAP = 1.5
SIGMAT = 1.0
SIGMARH = 8.0
ELEVATION (FEET)
$\times 10^3$
30.0
24.0
18.0
12.0
6.0
0.0
0.0
4.0
8.0
12.0
16.0
20.0
24.0
28.0
32.0
36.0
40.0
44.0
48.0
52.0
RANGE (NMI)
error ranges
DETECTION
CLASSIFICATION
IDENTIFICATION
ACTUAL PERFORMANCE

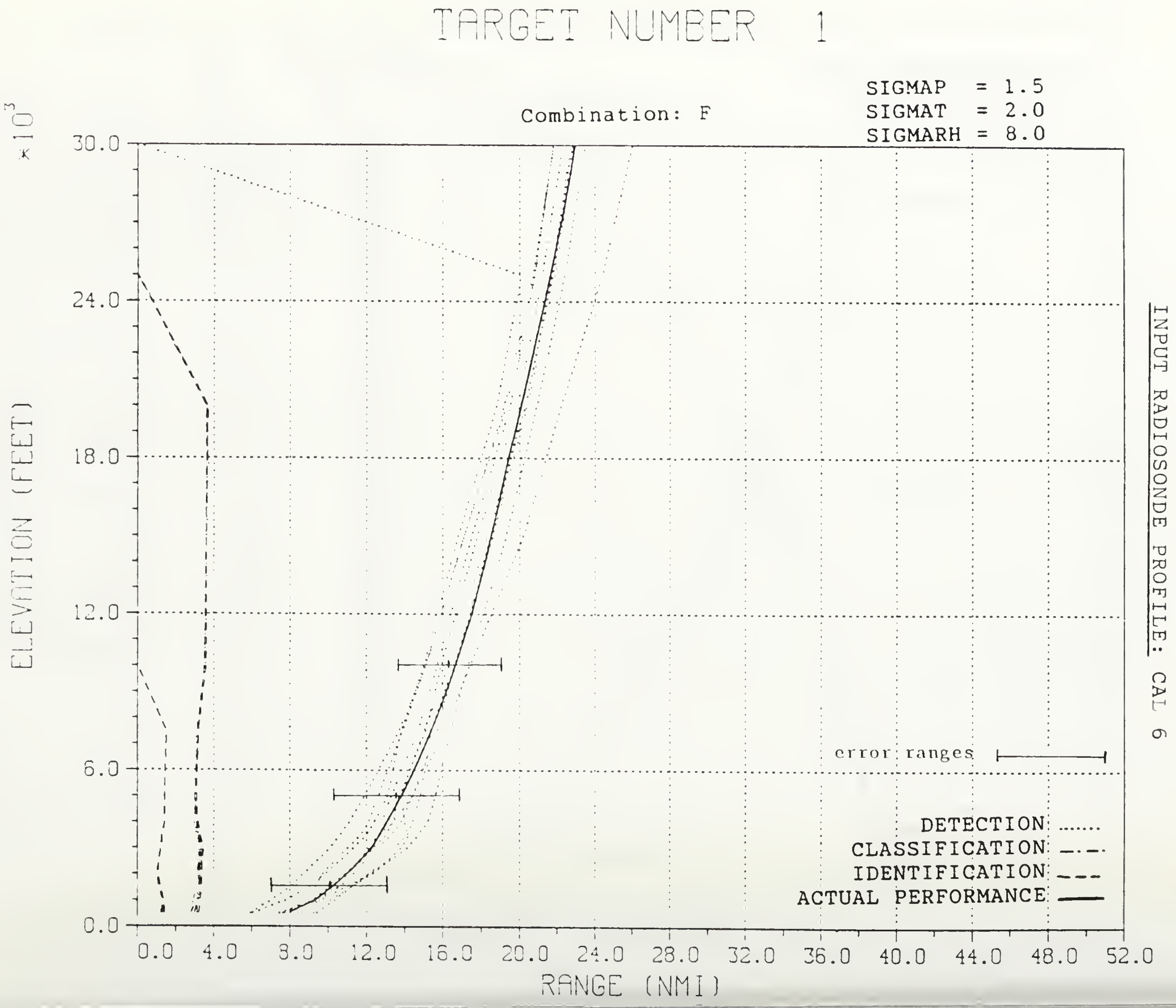


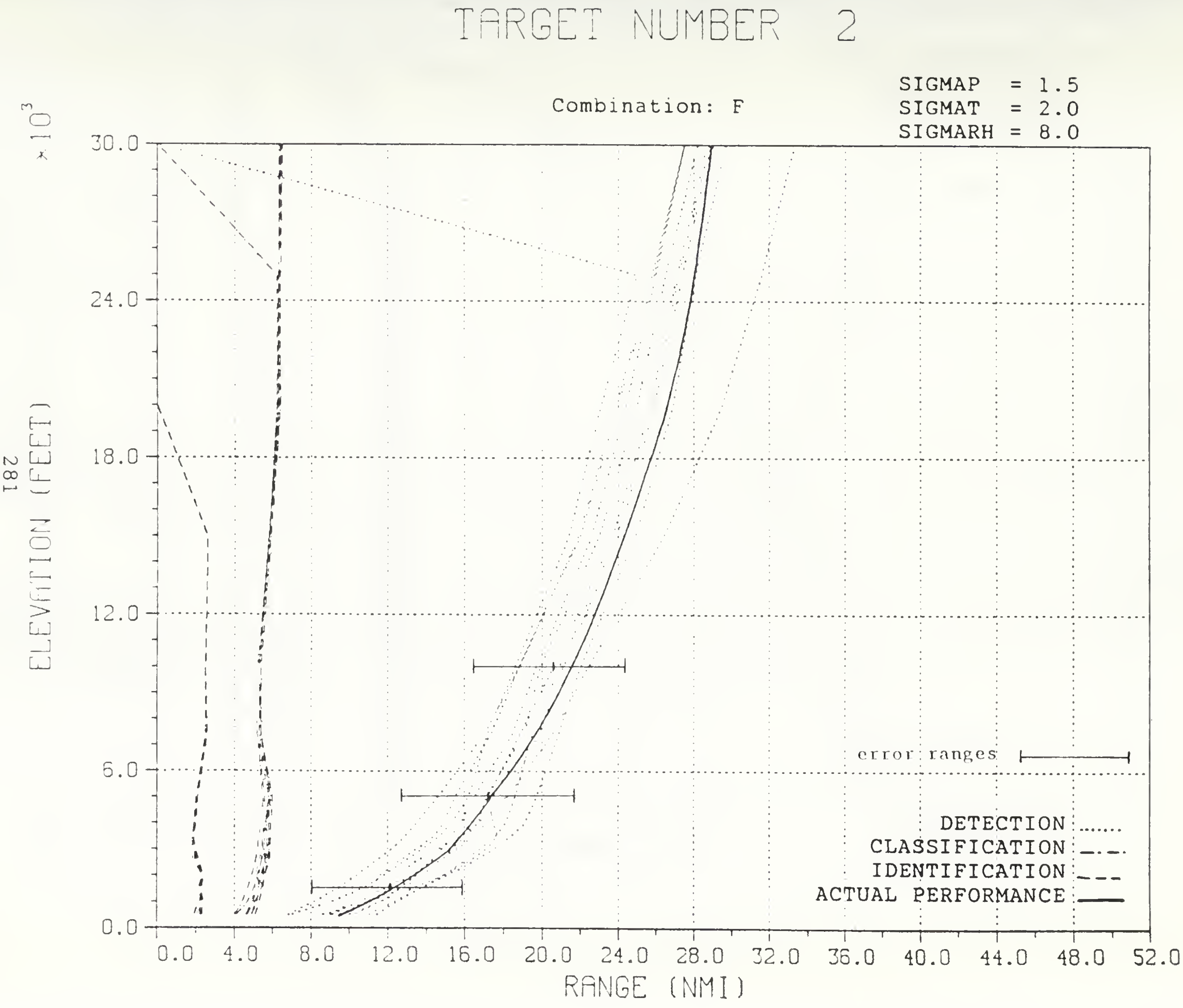
TARGET NUMBER 1
Combination: E
SIGMAP = 1.5
SIGMAT = 2.0
SIGMARH = 8.0
INPUT RADIOSONDE PROFILE: CAL 6
ELEVATION (FEET)
×10^3
30.0
24.0
18.0
12.0
6.0
0.0
RANGE (NMI)
0.0
4.0
8.0
12.0
16.0
20.0
24.0
28.0
32.0
36.0
40.0
44.0
48.0
52.0
error ranges
DETECTION
CLASSIFICATION
IDENTIFICATION
ACTUAL PERFORMANCE

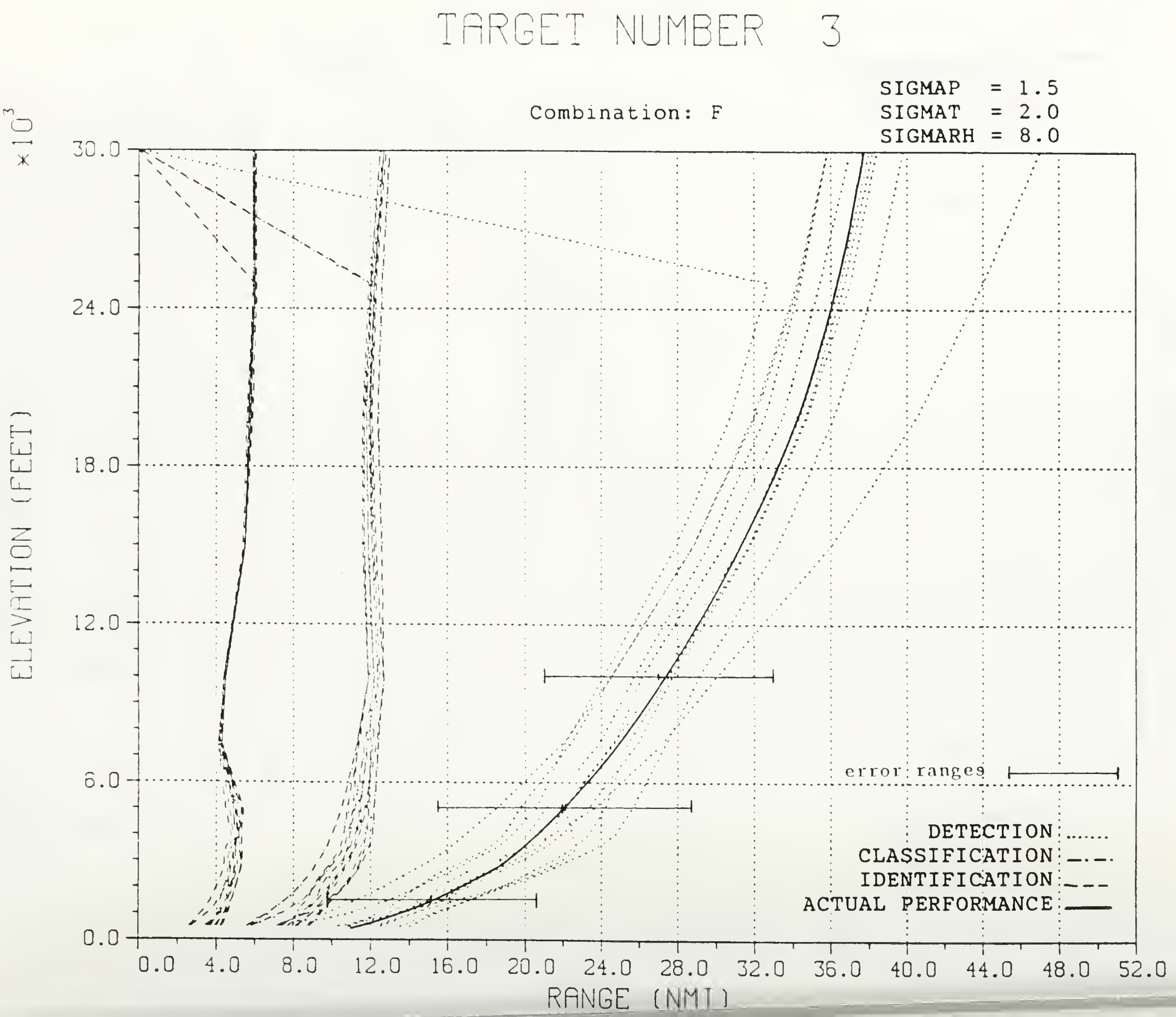

TARGET NUMBER 2
Combination: E
SIGMAP = 1.5
SIGMAT = 2.0
SIGMARH = 8.0
error ranges
DETECTION
CLASSIFICATION
IDENTIFICATION
ACTUAL PERFORMANCE
RANGE (NMI)
ELEVATION (FEET)
$\times 10^3$
0.0
4.0
8.0
12.0
16.0
20.0
24.0
28.0
32.0
36.0
40.0
44.0
48.0
52.0
0.0
6.0
12.0
18.0
24.0
30.0

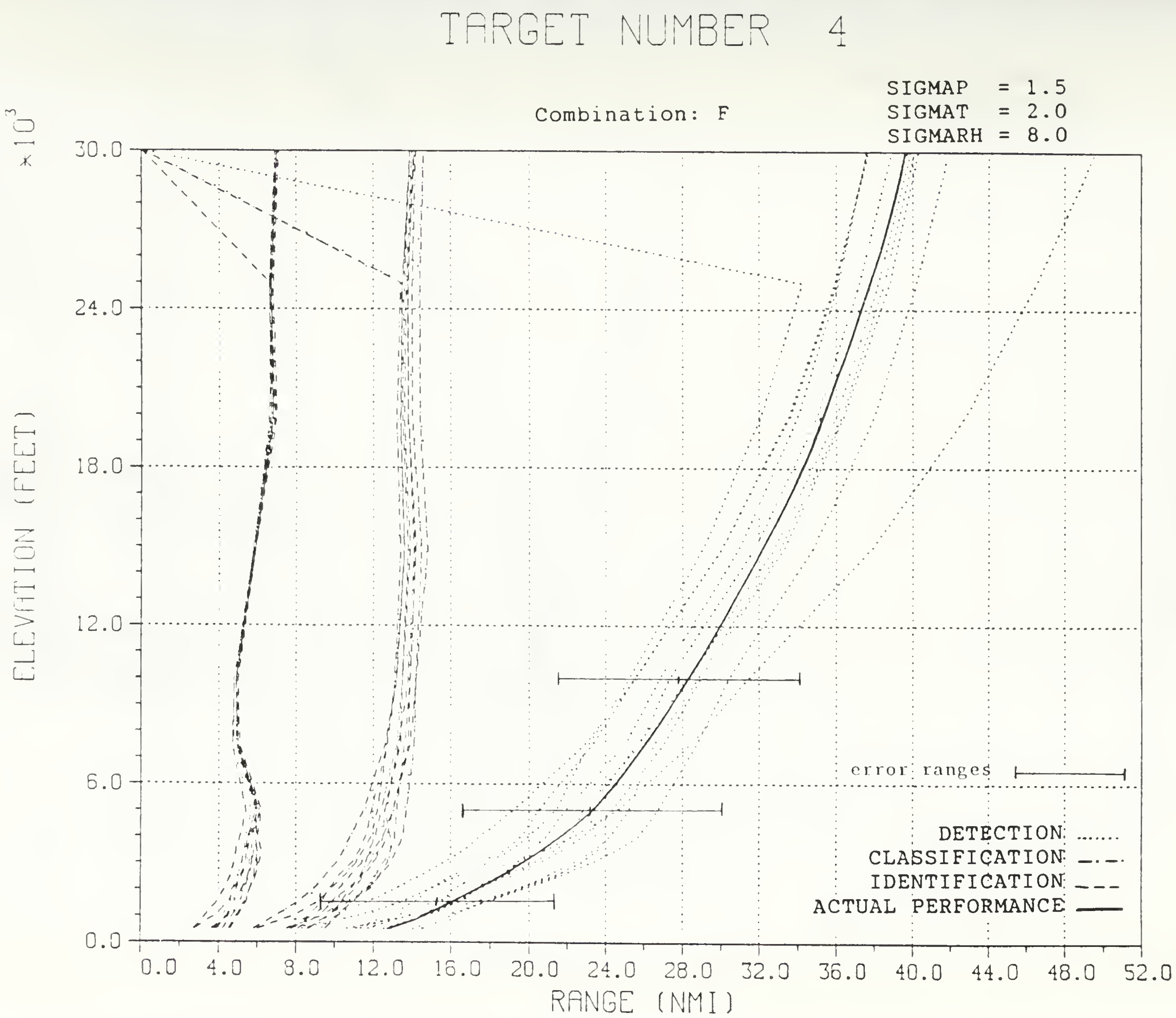

TARGET NUMBER 3
Combination: E
SIGMAP = 1.5
SIGMAT = 2.0
SIGMARH = 8.0
ELEVATION (FEET)
$\times 10^3$
30.0
24.0
18.0
12.0
6.0
0.0
0.0
4.0
8.0
12.0
16.0
20.0
24.0
28.0
32.0
36.0
40.0
44.0
48.0
52.0
RANGE (NMI)
error ranges
DETECTION
CLASSIFICATION
IDENTIFICATION
ACTUAL PERFORMANCE


TARGET NUMBER 4
Combination: E
SIGMAP = 1.5
SIGMAT = 2.0
SIGMARH = 8.0
ELEVATION (FEET)
×10^3
30.0
24.0
18.0
12.0
6.0
0.0
0.0
4.0
8.0
12.0
16.0
20.0
24.0
28.0
32.0
36.0
40.0
44.0
48.0
52.0
RANGE (NMI)
error ranges
DETECTION
CLASSIFICATION
IDENTIFICATION
ACTUAL PERFORMANCE

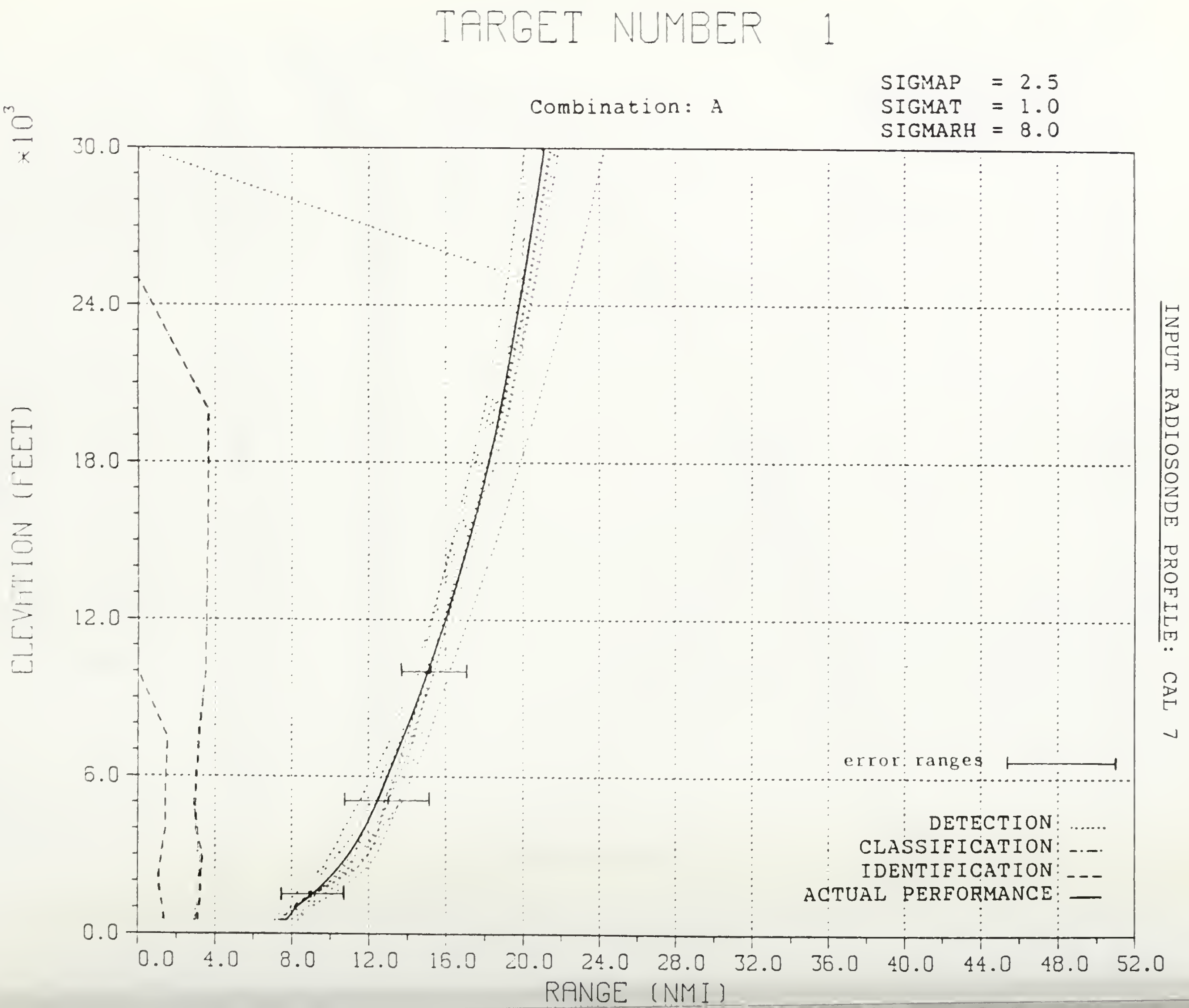

TARGET NUMBER 1
Combination: F
SIGMAP = 1.5
SIGMAT = 2.0
SIGMARH = 8.0
INPUT RADIOSONDE PROFILE: CAL 6
ELEVATION (FEET)
$\times 10^3$
30.0
24.0
18.0
12.0
6.0
0.0
RANGE (NMI)
0.0
4.0
8.0
12.0
16.0
20.0
24.0
28.0
32.0
36.0
40.0
44.0
48.0
52.0
error ranges
DETECTION
CLASSIFICATION
IDENTIFICATION
ACTUAL PERFORMANCE


TARGET NUMBER 2
Combination: F
SIGMAP = 1.5
SIGMAT = 2.0
SIGMARH = 8.0
ELEVATION (FEET)
$\times 10^3$
30.0
24.0
18.0
12.0
6.0
0.0
0.0
4.0
8.0
12.0
16.0
20.0
24.0
28.0
32.0
36.0
40.0
44.0
48.0
52.0
RANGE (NMI)
error ranges
DETECTION
CLASSIFICATION
IDENTIFICATION
ACTUAL PERFORMANCE


TARGET NUMBER 3
Combination: F
SIGMAP = 1.5
SIGMAT = 2.0
SIGMARH = 8.0
ELEVATION (FEET)
$\times 10^3$
RANGE (NMI)
30.0
24.0
18.0
12.0
6.0
0.0
0.0 4.0 8.0 12.0 16.0 20.0 24.0 28.0 32.0 36.0 40.0 44.0 48.0 52.0
error ranges
DETECTION
CLASSIFICATION
IDENTIFICATION
ACTUAL PERFORMANCE

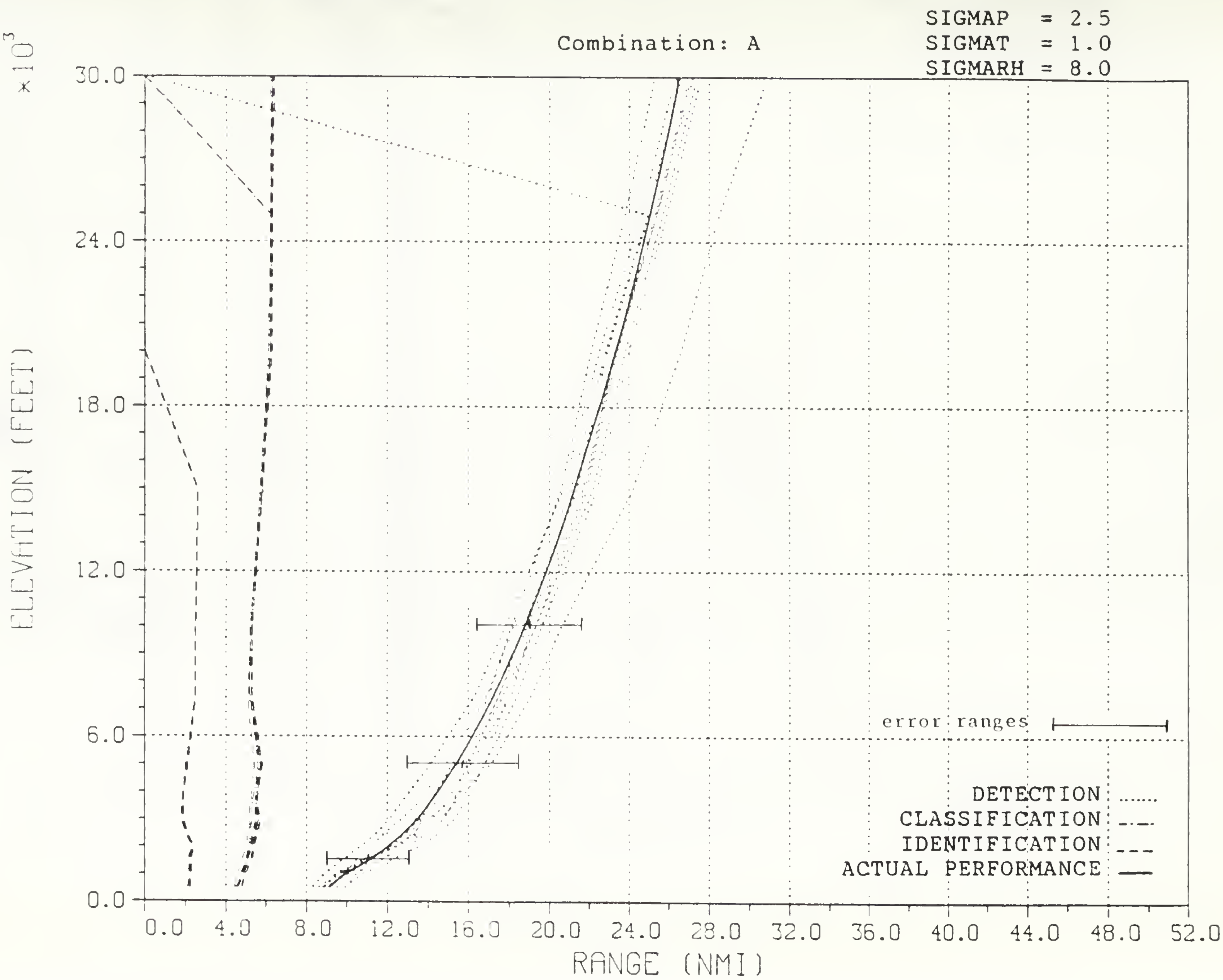


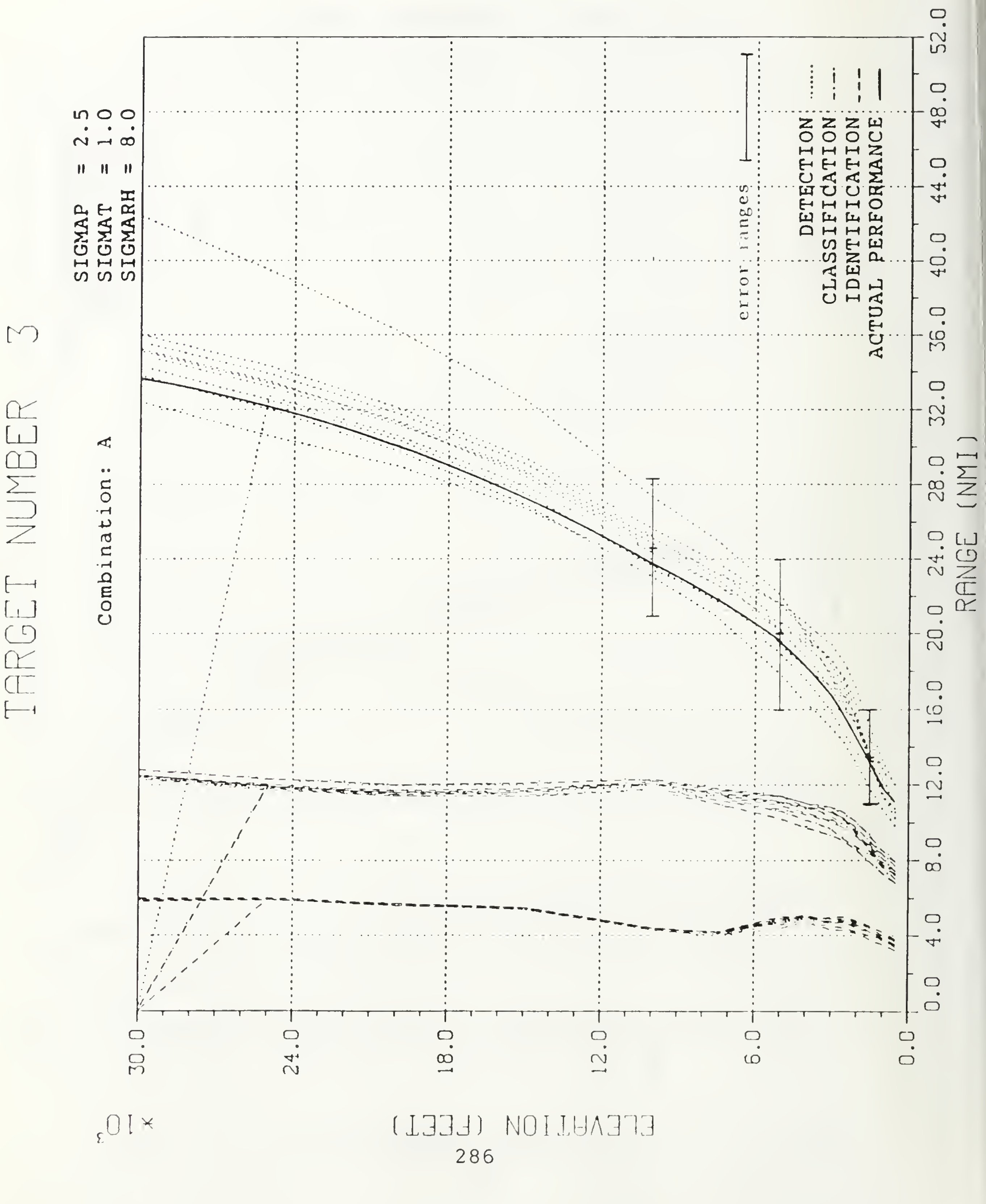
TARGET NUMBER 4
Combination: F
SIGMAP = 1.5
SIGMAT = 2.0
SIGMARH = 8.0
$\times 10^3$
ELEVATION (FEET)
30.0
24.0
18.0
12.0
6.0
0.0
0.0
4.0
8.0
12.0
16.0
20.0
24.0
28.0
32.0
36.0
40.0
44.0
48.0
52.0
RANGE (NMI)
error ranges
DETECTION
CLASSIFICATION
IDENTIFICATION
ACTUAL PERFORMANCE



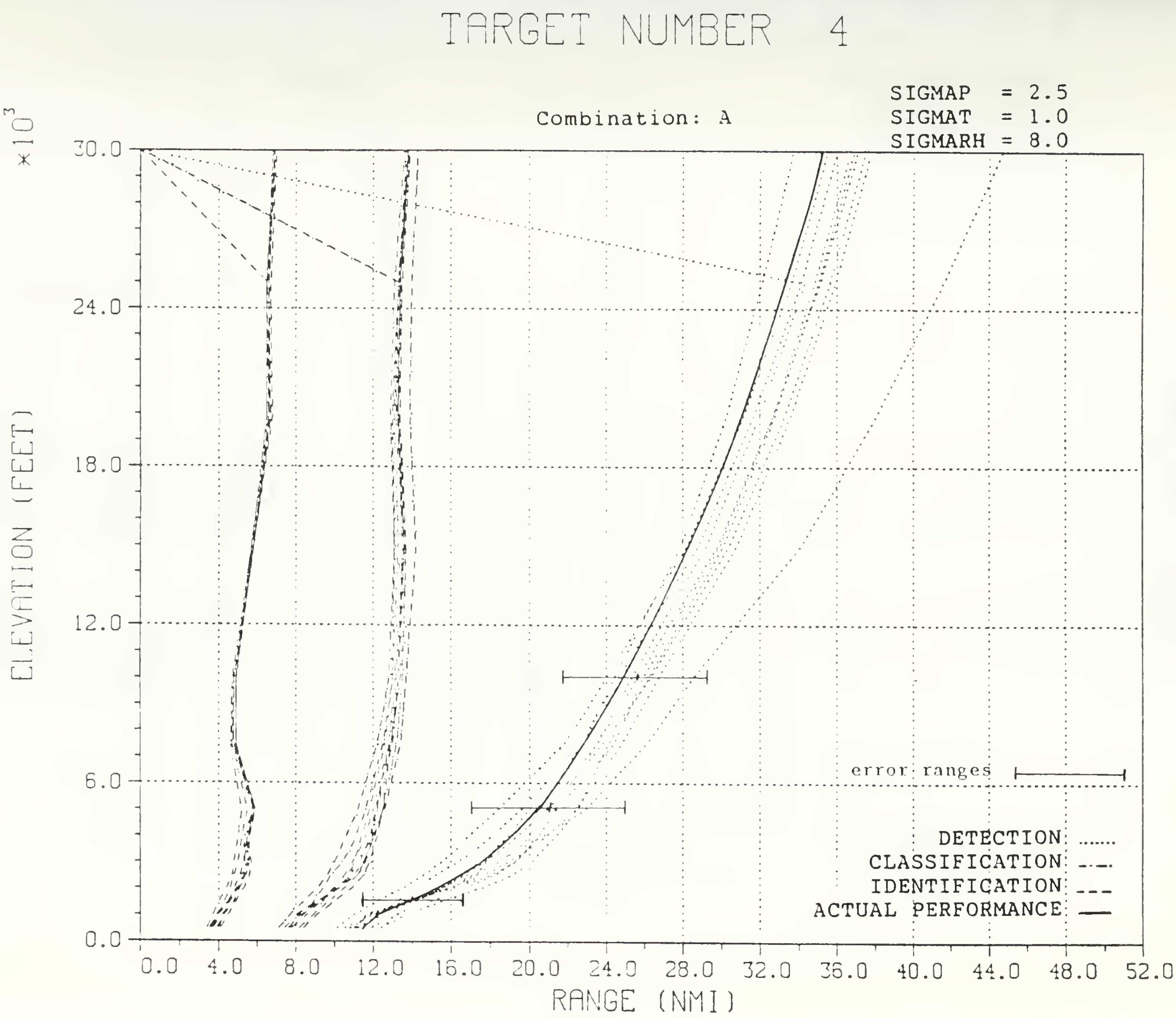
TARGET NUMBER 1
Combination: A
SIGMAP = 2.5
SIGMAT = 1.0
SIGMARH = 8.0
ELEVATION (FEET)
×10³
RANGE (NMI)
INPUT RADIOSONDE PROFILE: CAL 7
error ranges
DETECTION
CLASSIFICATION
IDENTIFICATION
ACTUAL PERFORMANCE
0.0
6.0
12.0
18.0
24.0
30.0
0.0
4.0
8.0
12.0
16.0
20.0
24.0
28.0
32.0
36.0
40.0
44.0
48.0
52.0

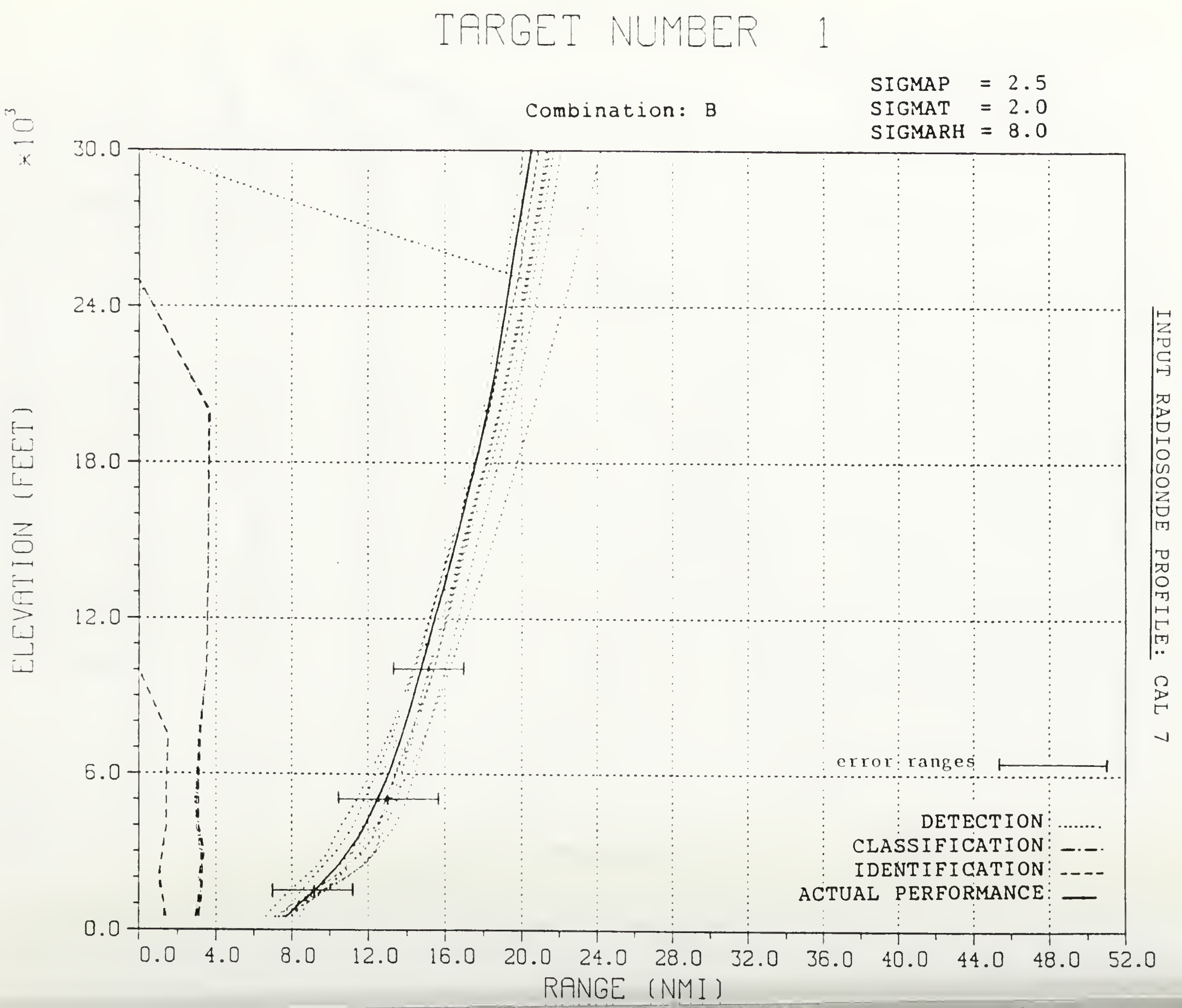
TARGET NUMBER 2



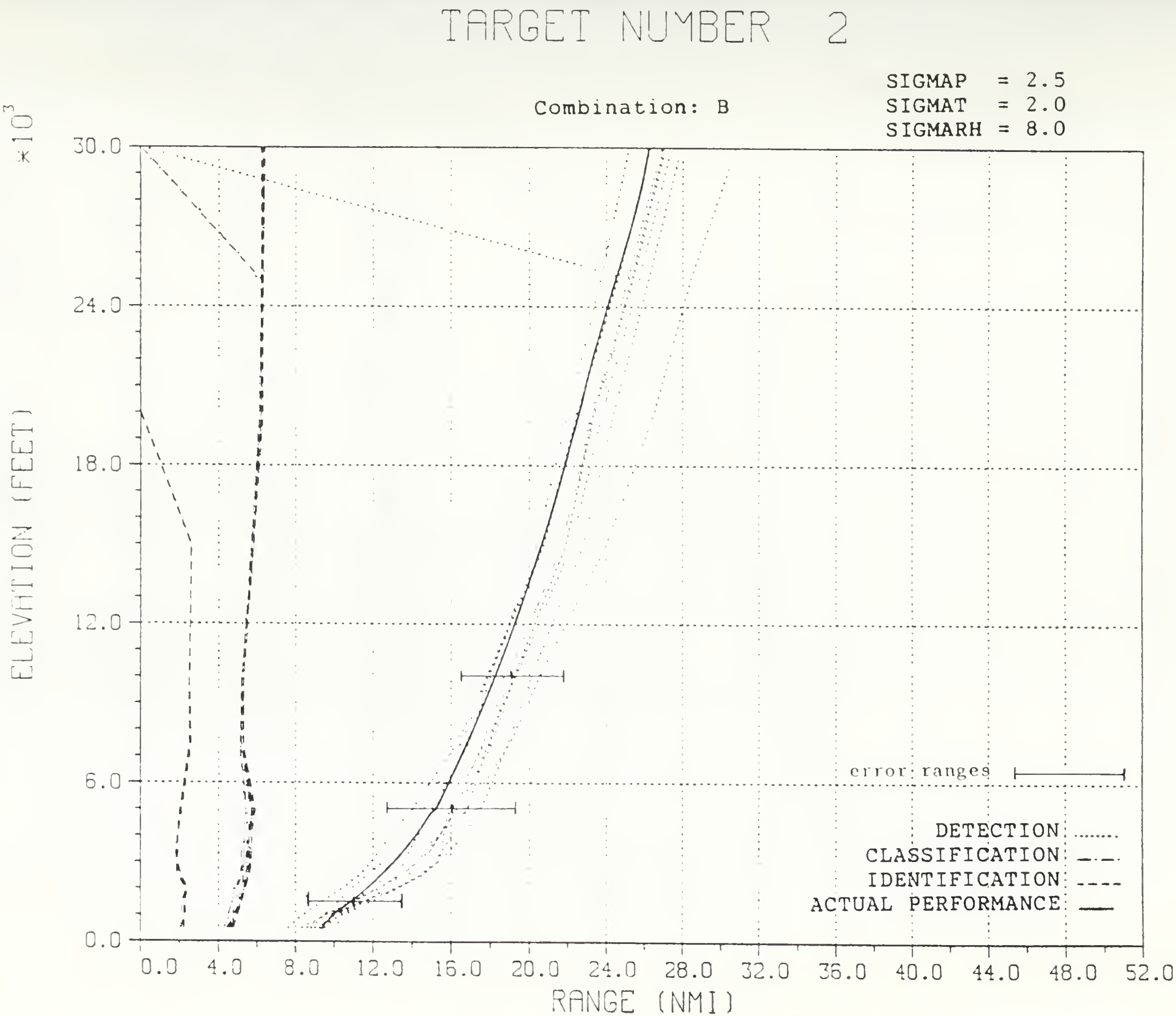


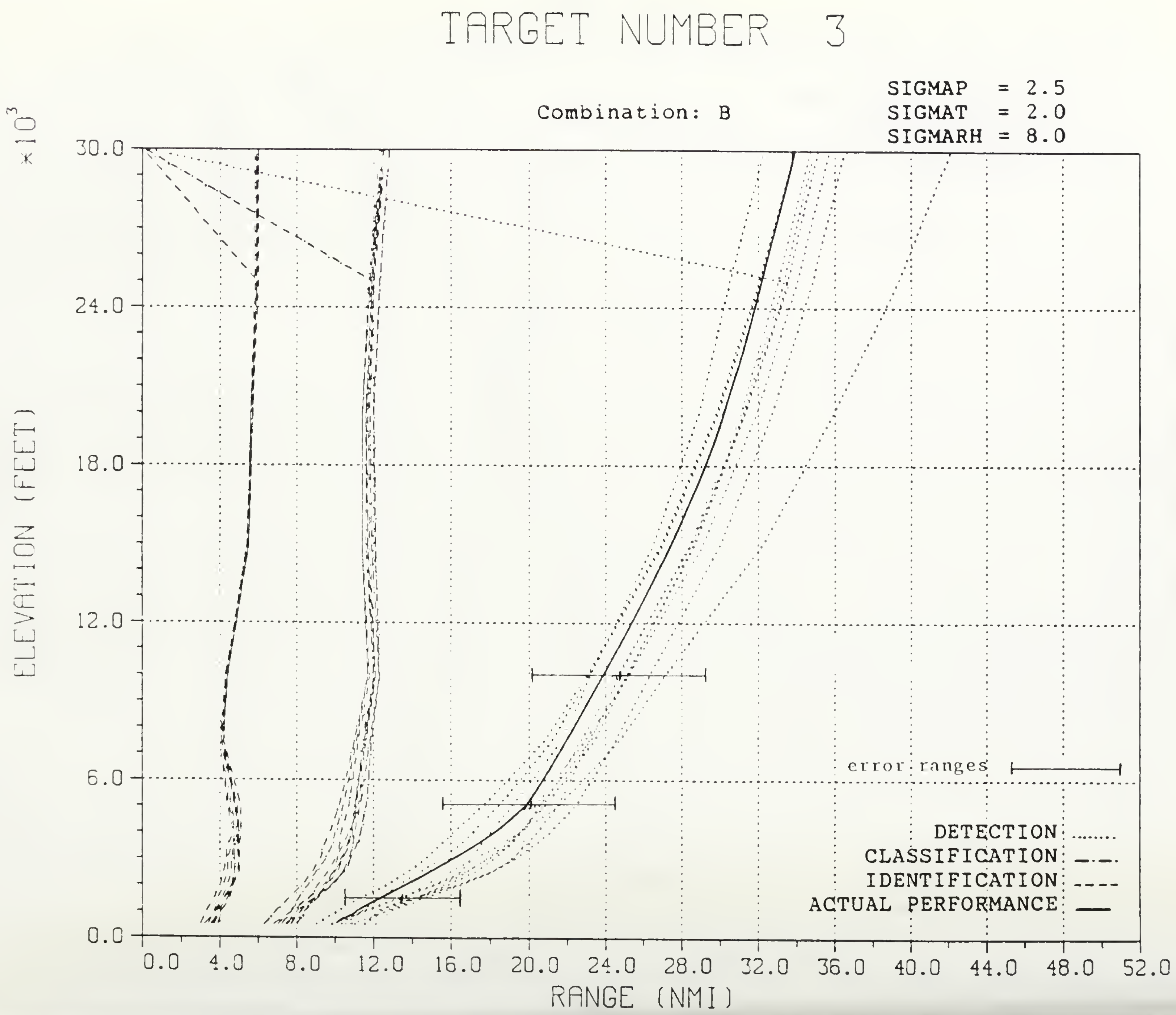
TARGET NUMBER 3
Combination: A
SIGMAP = 2.5
SIGMAT = 1.0
SIGMARH = 8.0
error ranges
DETECTION
CLASSIFICATION
IDENTIFICATION
ACTUAL PERFORMANCE
RANGE (NMI)
ELEVATION (FEET)
×10^3
0.0 4.0 8.0 12.0 16.0 20.0 24.0 28.0 32.0 36.0 40.0 44.0 48.0 52.0
0.0 6.0 12.0 18.0 24.0 30.0


TARGET NUMBER 4
Combination: A
SIGMAP = 2.5
SIGMAT = 1.0
SIGMARH = 8.0
ELEVATION (FEET)
$\times 10^3$
30.0
24.0
18.0
12.0
6.0
0.0
0.0
4.0
8.0
12.0
16.0
20.0
24.0
28.0
32.0
36.0
40.0
44.0
48.0
52.0
RANGE (NMI)
error ranges
DETECTION
CLASSIFICATION
IDENTIFICATION
ACTUAL PERFORMANCE

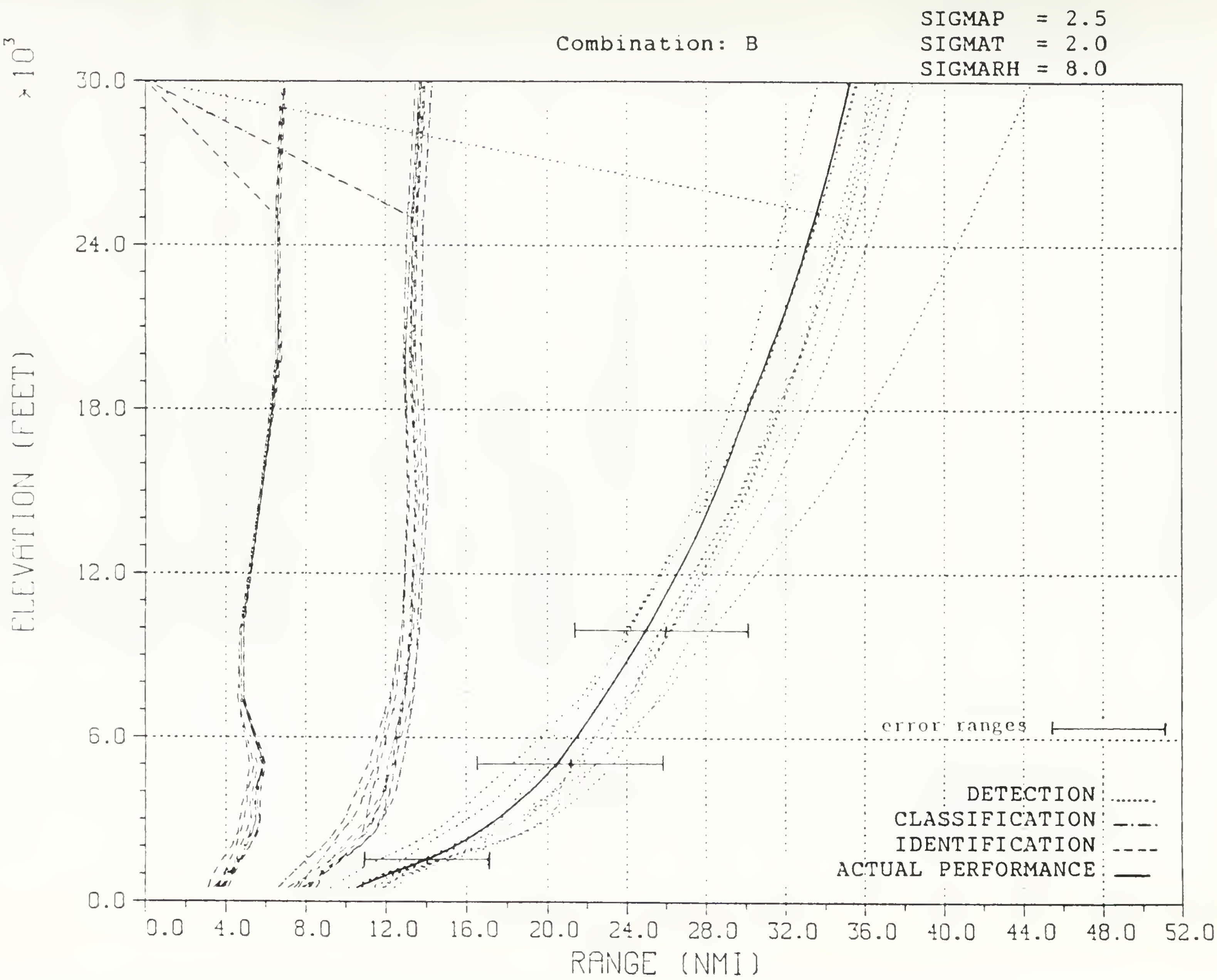


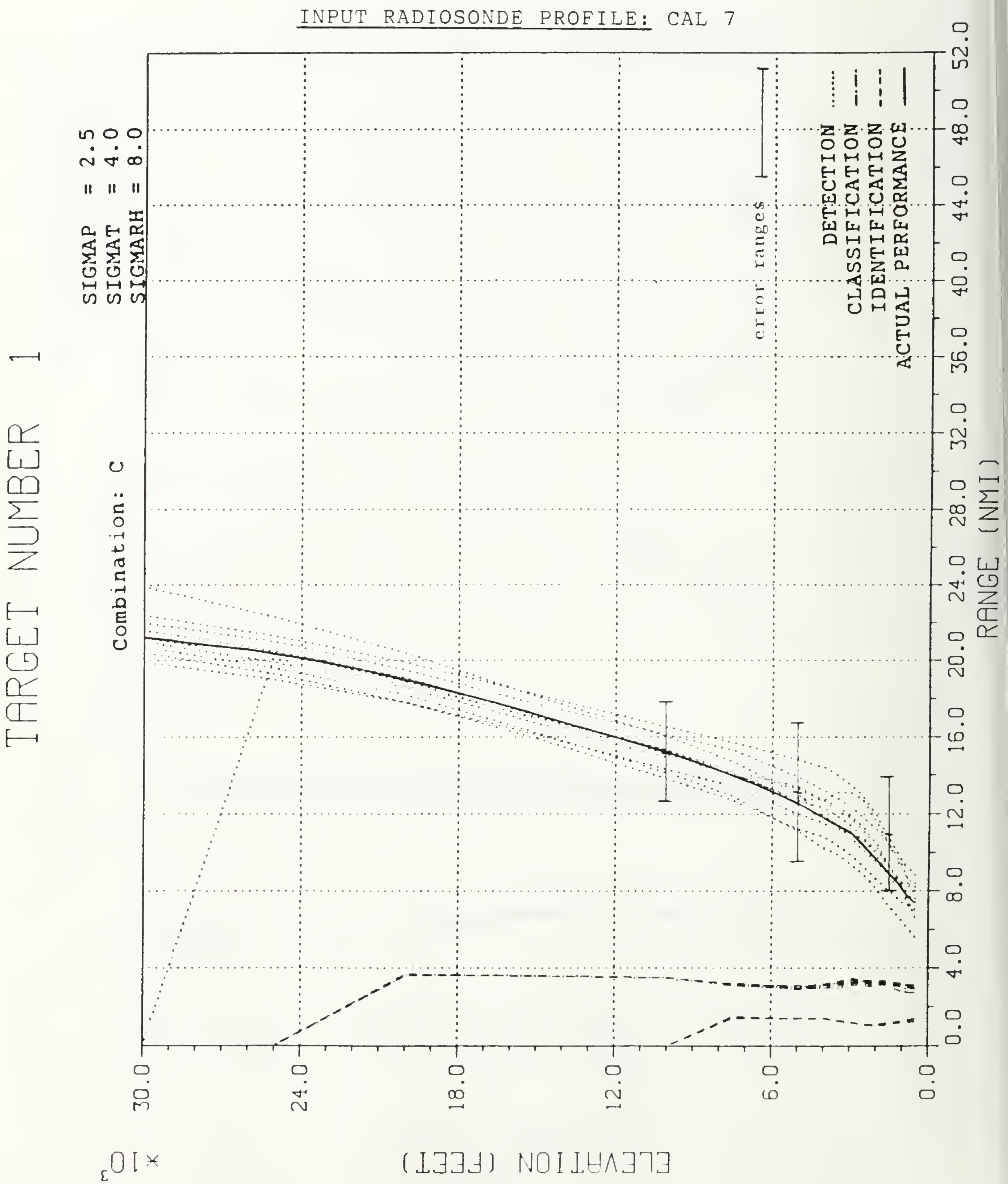
TARGET NUMBER 1
Combination: B
SIGMAP = 2.5
SIGMAT = 2.0
SIGMARH = 8.0
INPUT RADIOSONDE PROFILE: CAL 7
ELEVATION (FEET)
×10^3
30.0
24.0
18.0
12.0
6.0
0.0
RANGE (NMI)
0.0
4.0
8.0
12.0
16.0
20.0
24.0
28.0
32.0
36.0
40.0
44.0
48.0
52.0
error ranges
DETECTION
CLASSIFICATION
IDENTIFICATION
ACTUAL PERFORMANCE

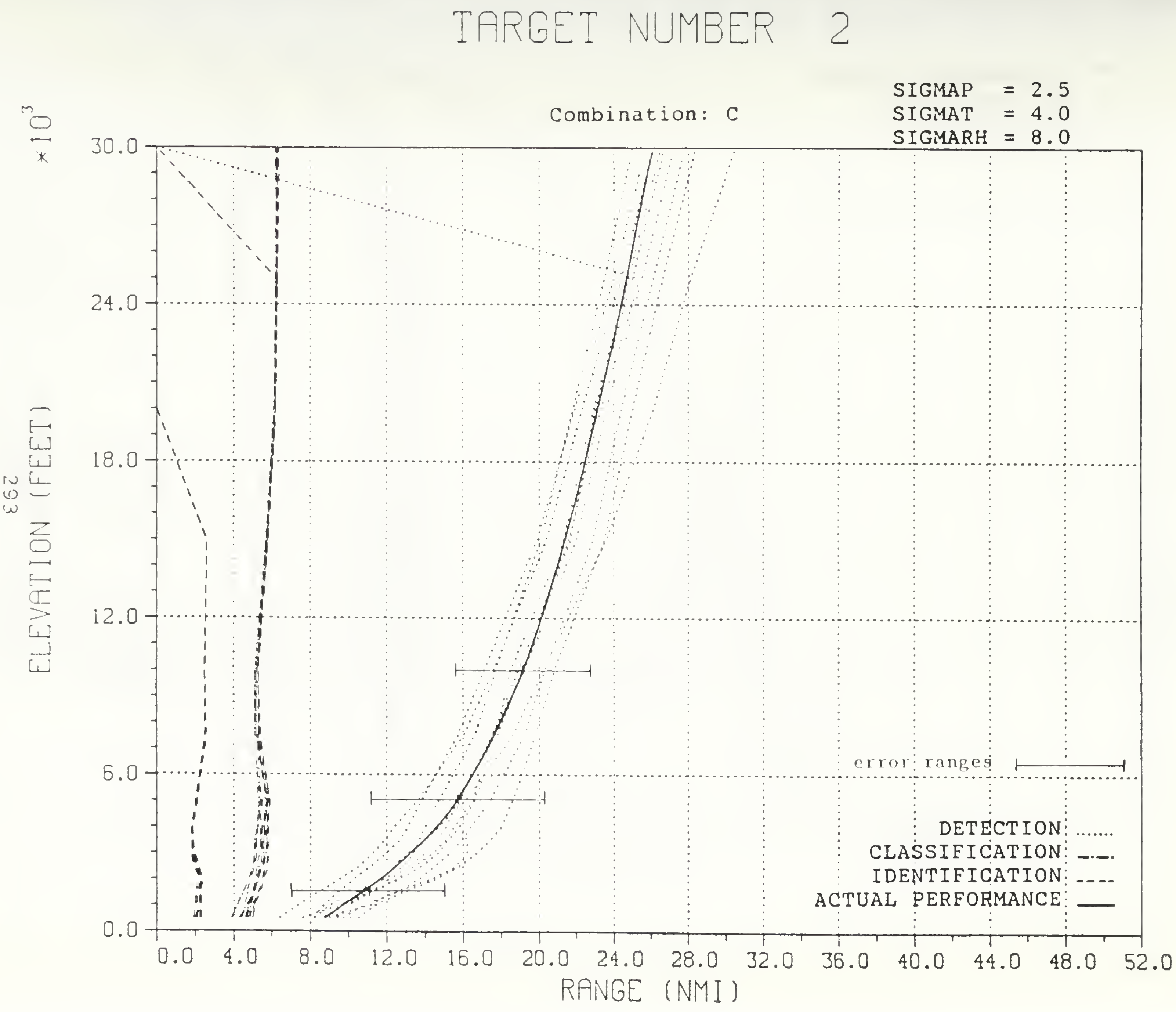

TARGET NUMBER 2
Combination: B
SIGMAP = 2.5
SIGMAT = 2.0
SIGMARH = 8.0
$\times 10^3$
ELEVATION (FEET)
30.0
24.0
18.0
12.0
6.0
0.0
0.0
4.0
8.0
12.0
16.0
20.0
24.0
28.0
32.0
36.0
40.0
44.0
48.0
52.0
RANGE (NMI)
error ranges
DETECTION
CLASSIFICATION
IDENTIFICATION
ACTUAL PERFORMANCE

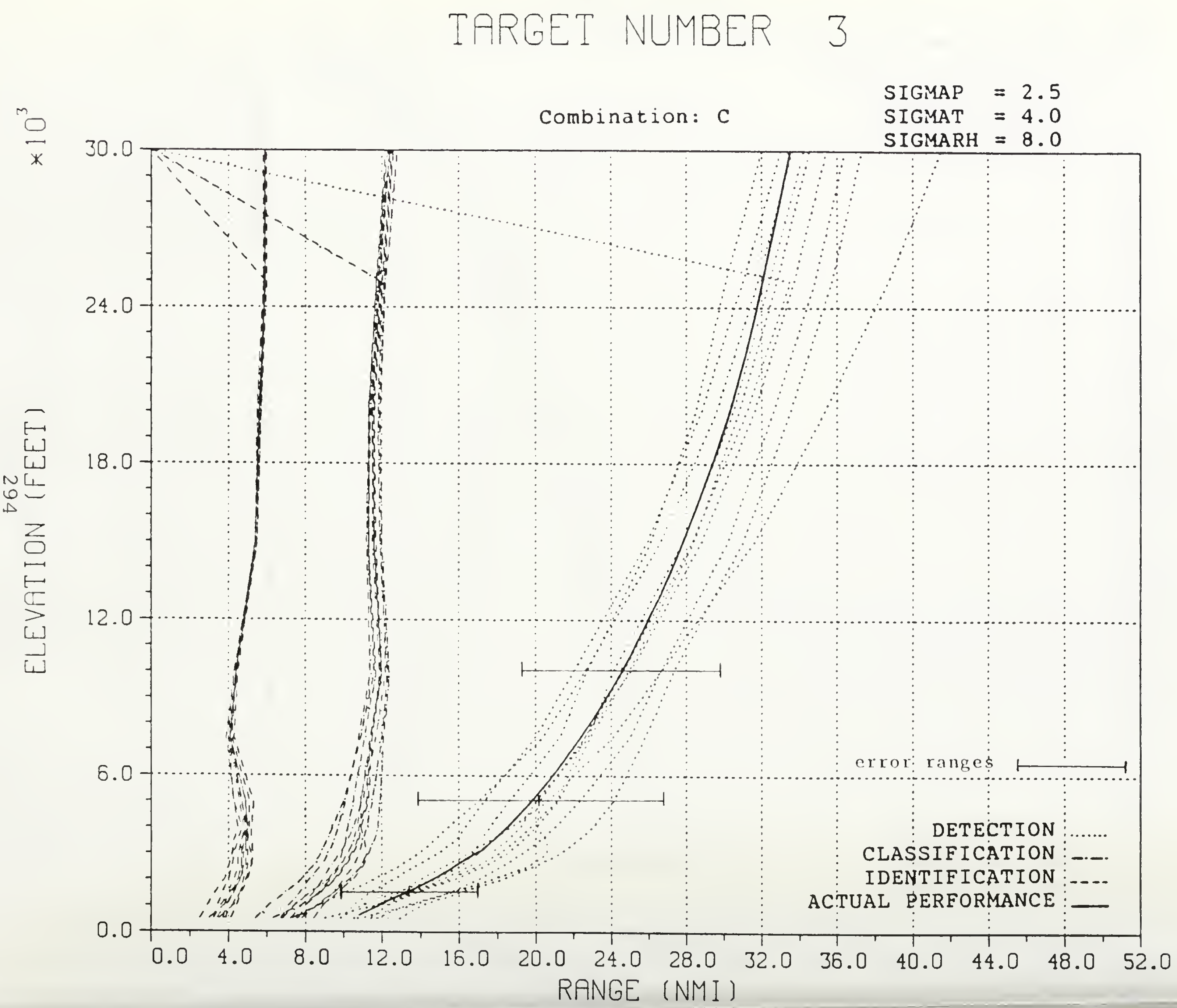

TARGET NUMBER 3
Combination: B
SIGMAP = 2.5
SIGMAT = 2.0
SIGMARH = 8.0
ELEVATION (FEET) ×10^3
30.0
24.0
18.0
12.0
6.0
0.0
RANGE (NMI)
0.0
4.0
8.0
12.0
16.0
20.0
24.0
28.0
32.0
36.0
40.0
44.0
48.0
52.0
error ranges
DETECTION
CLASSIFICATION
IDENTIFICATION
ACTUAL PERFORMANCE

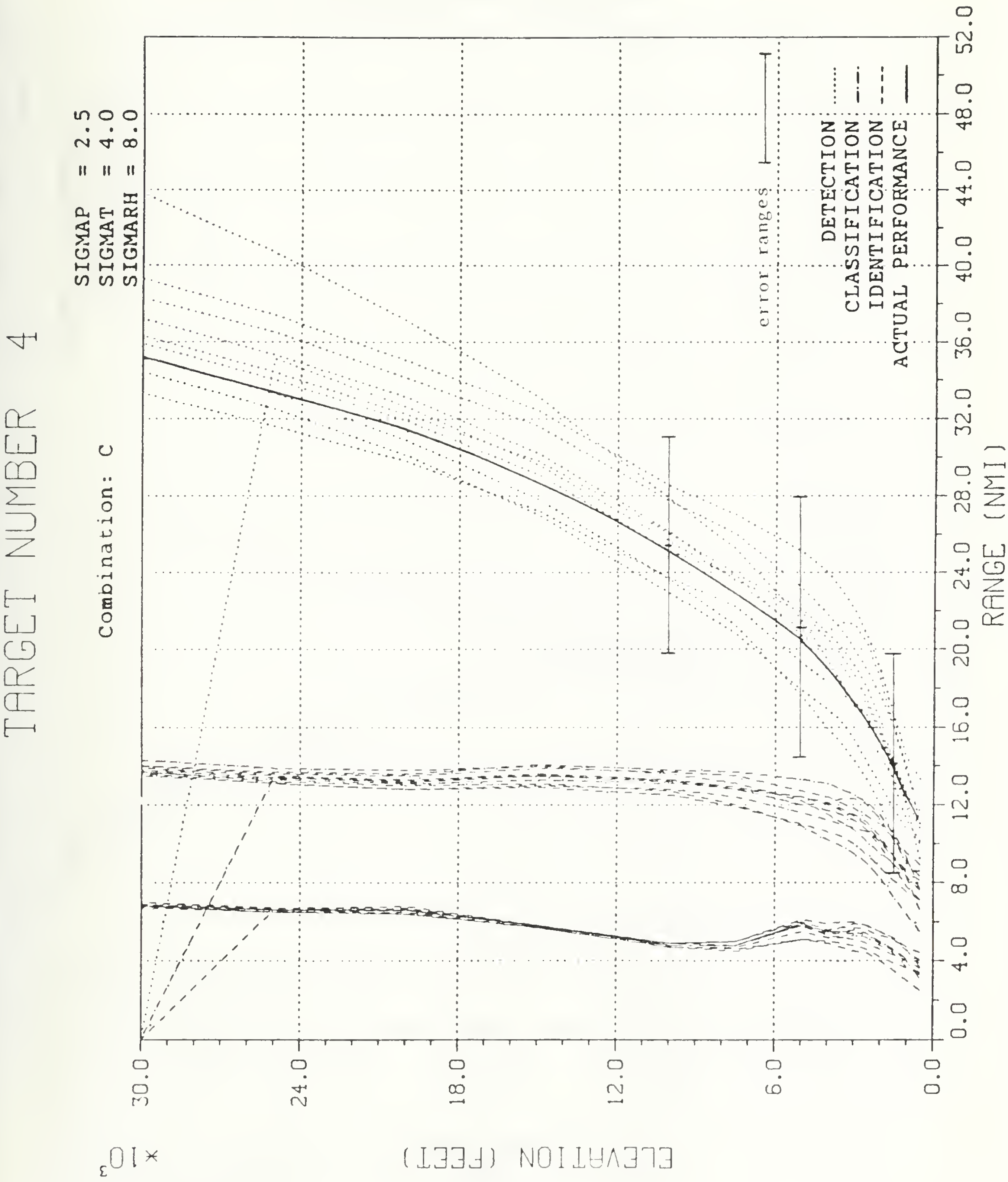
TARGET NUMBER 4

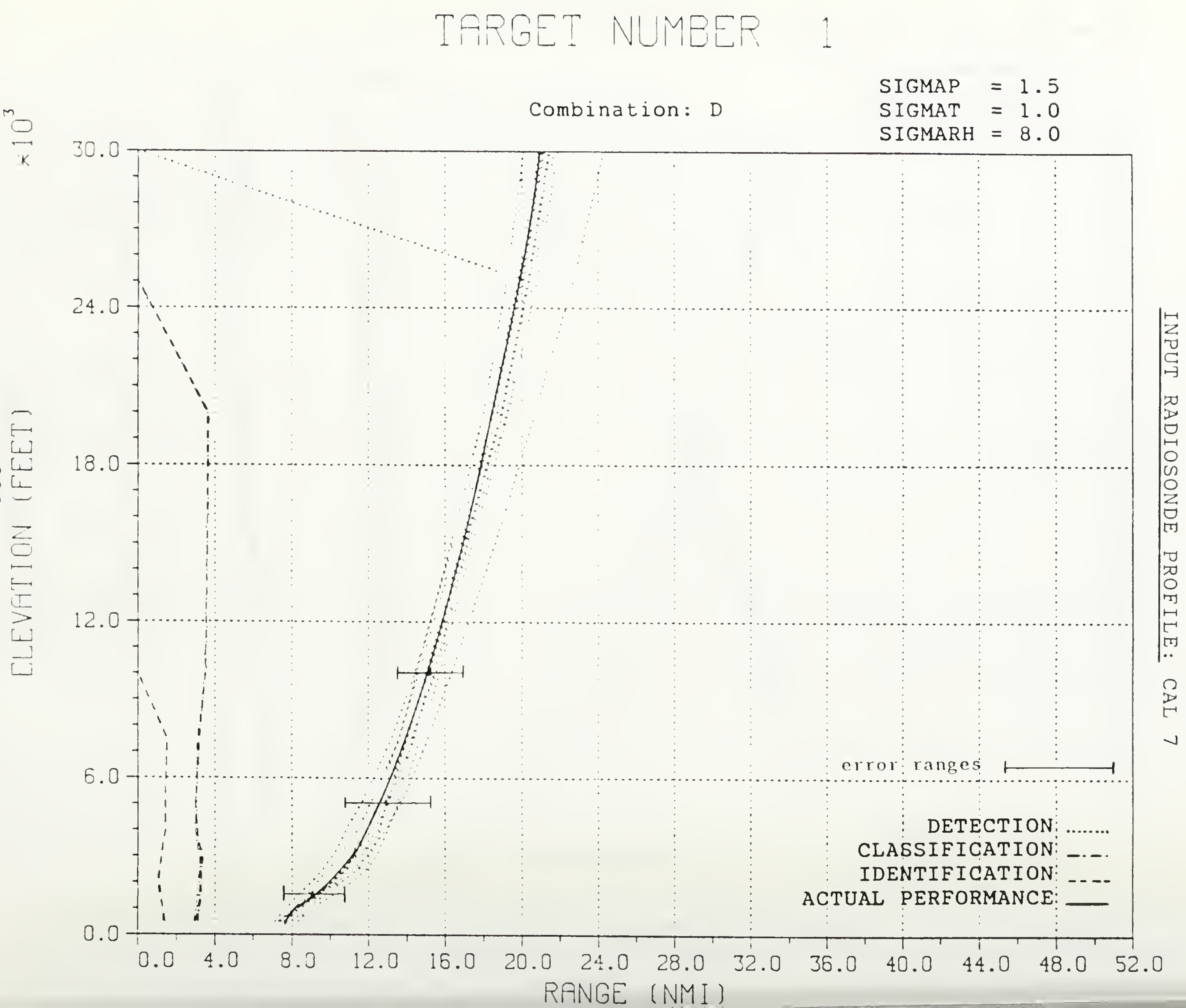


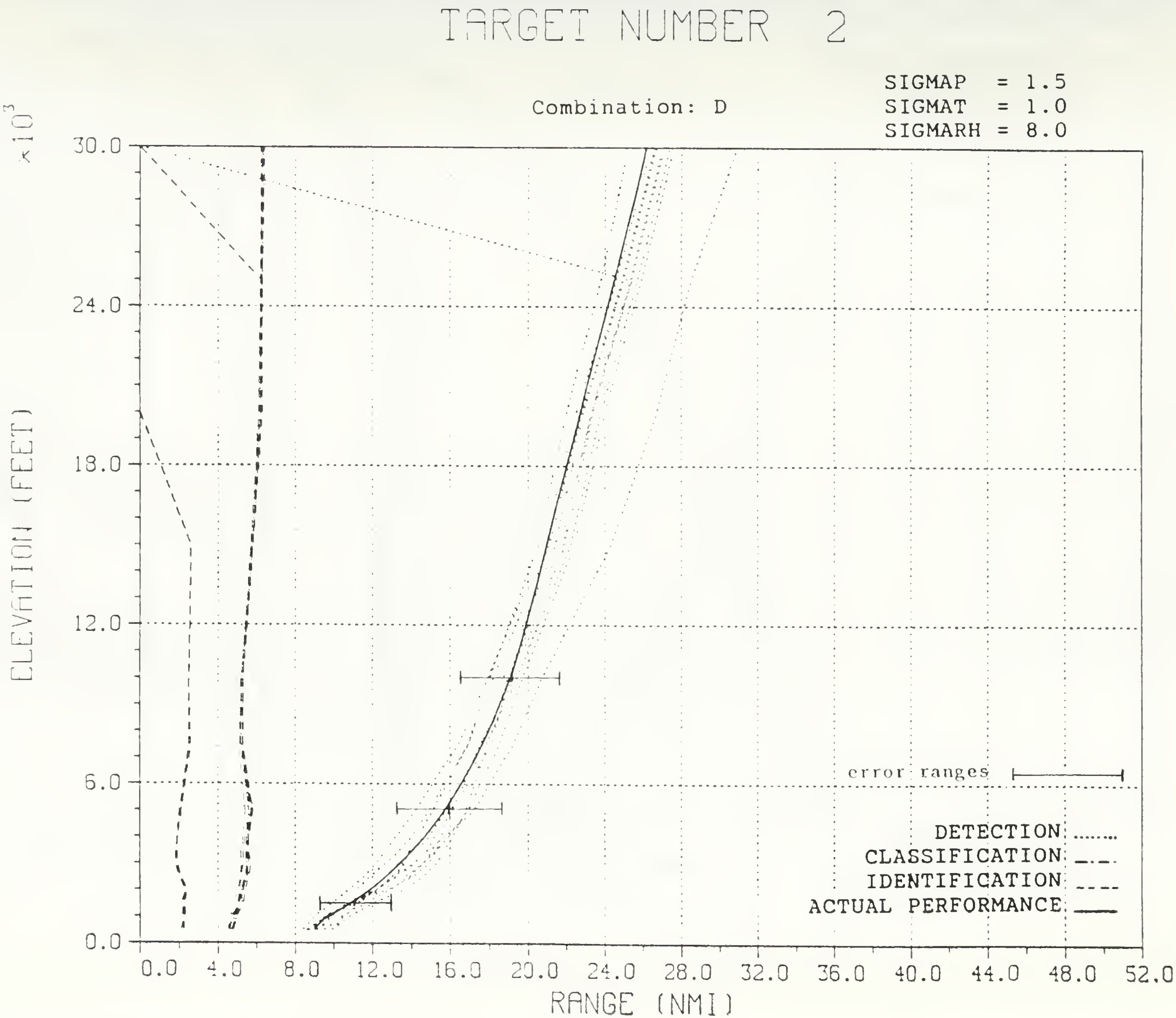

TARGET NUMBER 1
INPUT RADIOSONDE PROFILE: CAL 7
Combination: C
SIGMAP = 2.5
SIGMAT = 4.0
SIGMARH = 8.0
error ranges
DETECTION
CLASSIFICATION
IDENTIFICATION
ACTUAL PERFORMANCE
RANGE (NMI)
ELEVATION (FEET)
$\times 10^3$
0.0
4.0
8.0
12.0
16.0
20.0
24.0
28.0
32.0
36.0
40.0
44.0
48.0
52.0
0.0
6.0
12.0
18.0
24.0
30.0


TARGET NUMBER 2
Combination: C
SIGMAP = 2.5
SIGMAT = 4.0
SIGMARH = 8.0
ELEVATION (FEET) *10^3
RANGE (NMI)
error ranges
DETECTION
CLASSIFICATION
IDENTIFICATION
ACTUAL PERFORMANCE
0.0
6.0
12.0
18.0
24.0
30.0
0.0
4.0
8.0
12.0
16.0
20.0
24.0
28.0
32.0
36.0
40.0
44.0
48.0
52.0

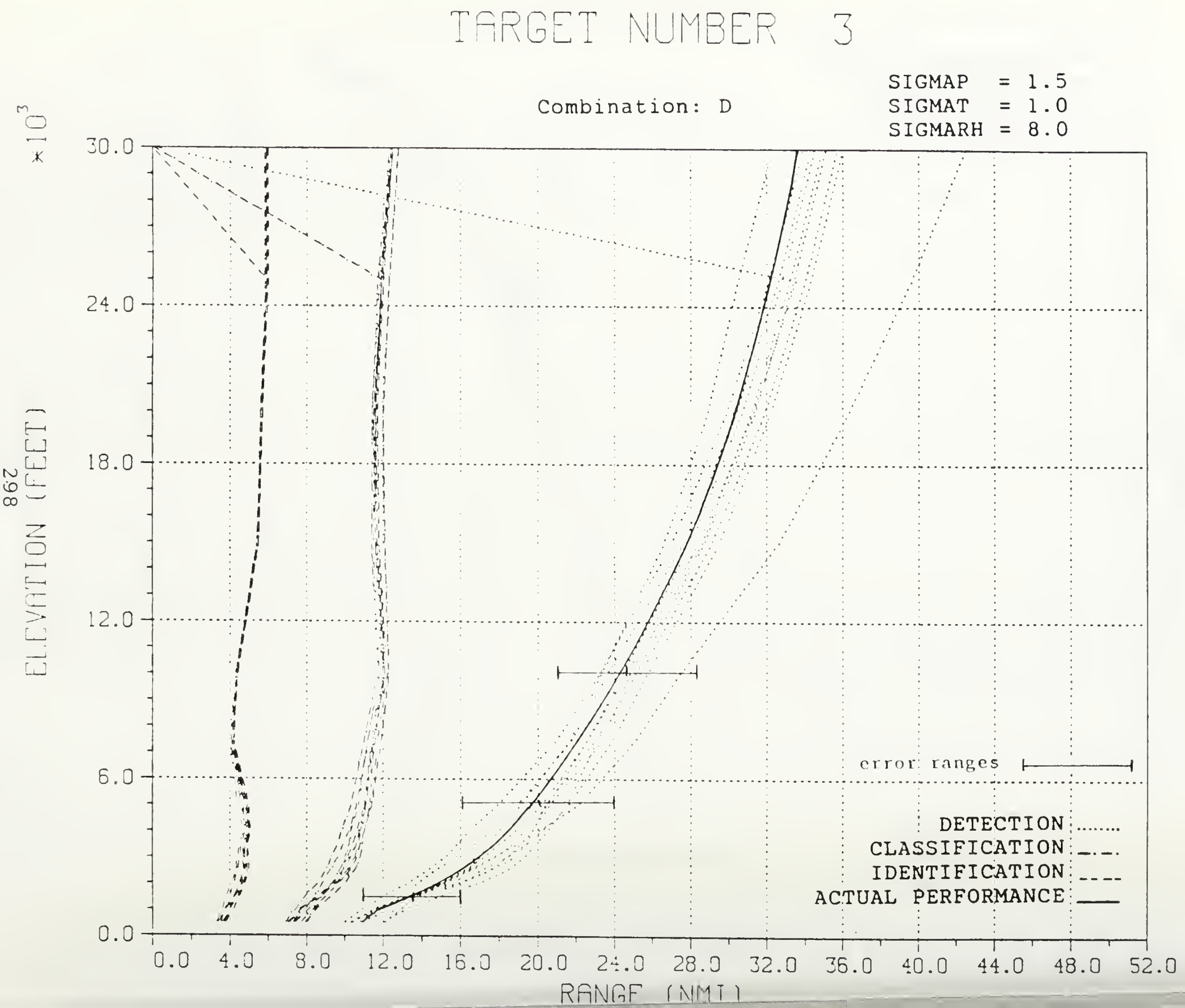

TARGET NUMBER 3
Combination: C
SIGMAP = 2.5
SIGMAT = 4.0
SIGMARH = 8.0
ELEVATION (FEET)
$\times 10^3$
30.0
24.0
18.0
12.0
6.0
0.0
0.0 4.0 8.0 12.0 16.0 20.0 24.0 28.0 32.0 36.0 40.0 44.0 48.0 52.0
RANGE (NMI)
error ranges
DETECTION
CLASSIFICATION
IDENTIFICATION
ACTUAL PERFORMANCE

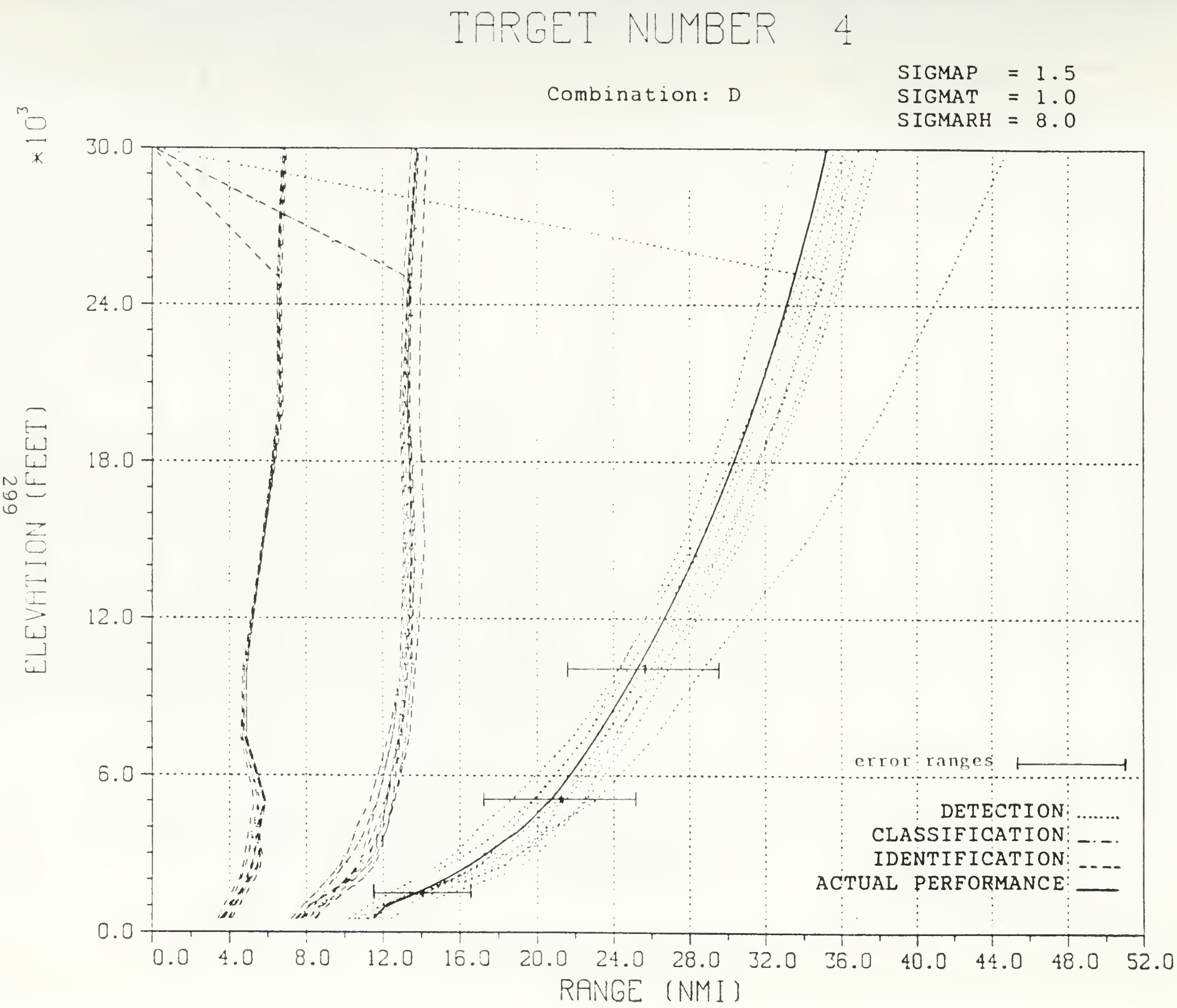

TARGET NUMBER 4
Combination: C
SIGMAP = 2.5
SIGMAT = 4.0
SIGMARH = 8.0
error ranges
DETECTION
CLASSIFICATION
IDENTIFICATION
ACTUAL PERFORMANCE
RANGE (NMI)
ELEVATION (FEET)
×10³
0.0
4.0
8.0
12.0
16.0
20.0
24.0
28.0
32.0
36.0
40.0
44.0
48.0
52.0
6.0
18.0
30.0


TARGET NUMBER 1
Combination: D
SIGMAP = 1.5
SIGMAT = 1.0
SIGMARH = 8.0
INPUT RADIOSONDE PROFILE: CAL 7
ELEVATION (FEET)
$\times 10^3$
30.0
24.0
18.0
12.0
6.0
0.0
RANGE (NMI)
0.0
4.0
8.0
12.0
16.0
20.0
24.0
28.0
32.0
36.0
40.0
44.0
48.0
52.0
error ranges
DETECTION
CLASSIFICATION
IDENTIFICATION
ACTUAL PERFORMANCE

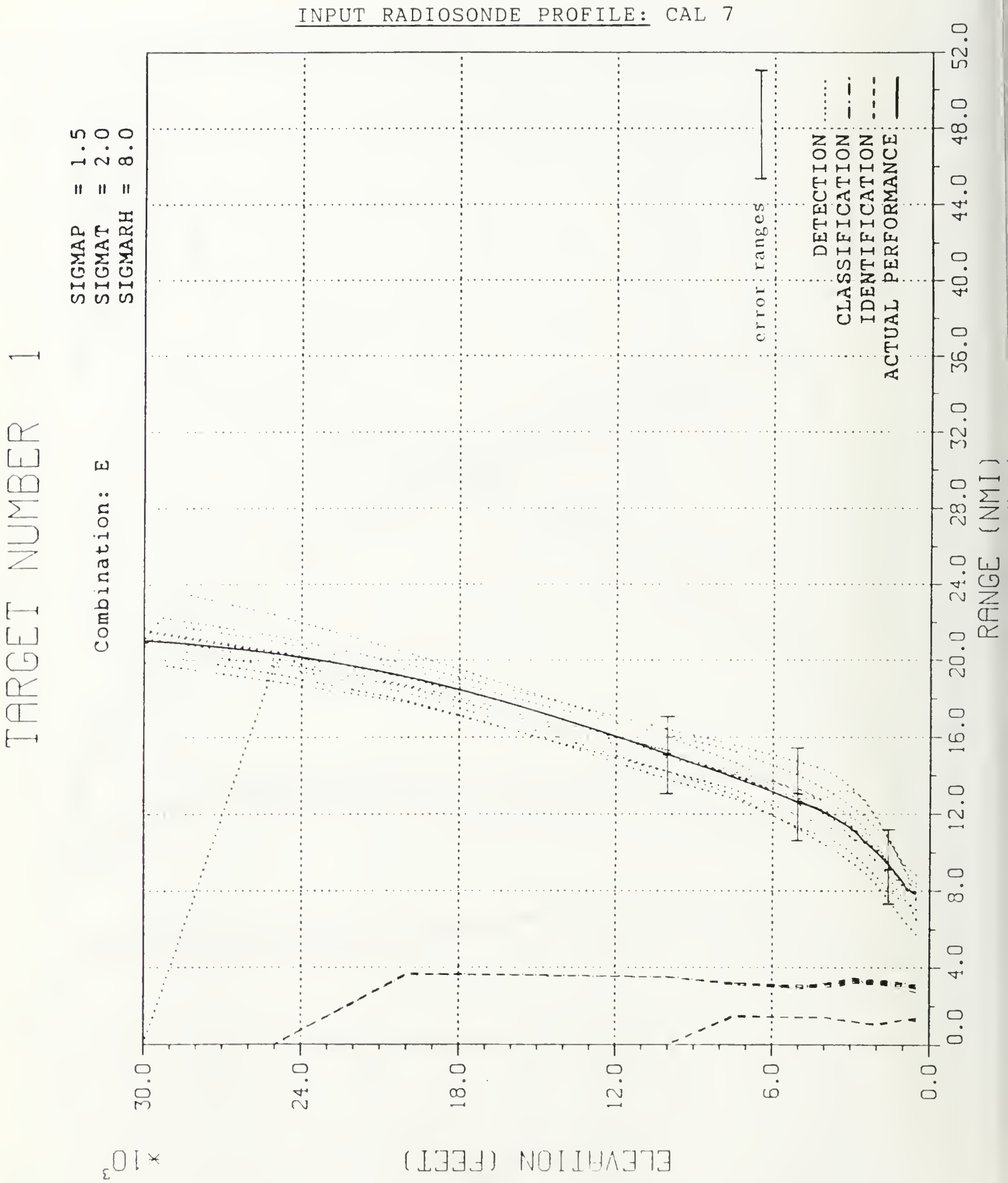


TARGET NUMBER 2
Combination: D
SIGMAP = 1.5
SIGMAT = 1.0
SIGMARH = 8.0
$\times 10^3$
ELEVATION (FEET)
30.0
24.0
18.0
12.0
6.0
0.0
RANGE (NMI)
0.0
4.0
8.0
12.0
16.0
20.0
24.0
28.0
32.0
36.0
40.0
44.0
48.0
52.0
error ranges
DETECTION
CLASSIFICATION
IDENTIFICATION
ACTUAL PERFORMANCE

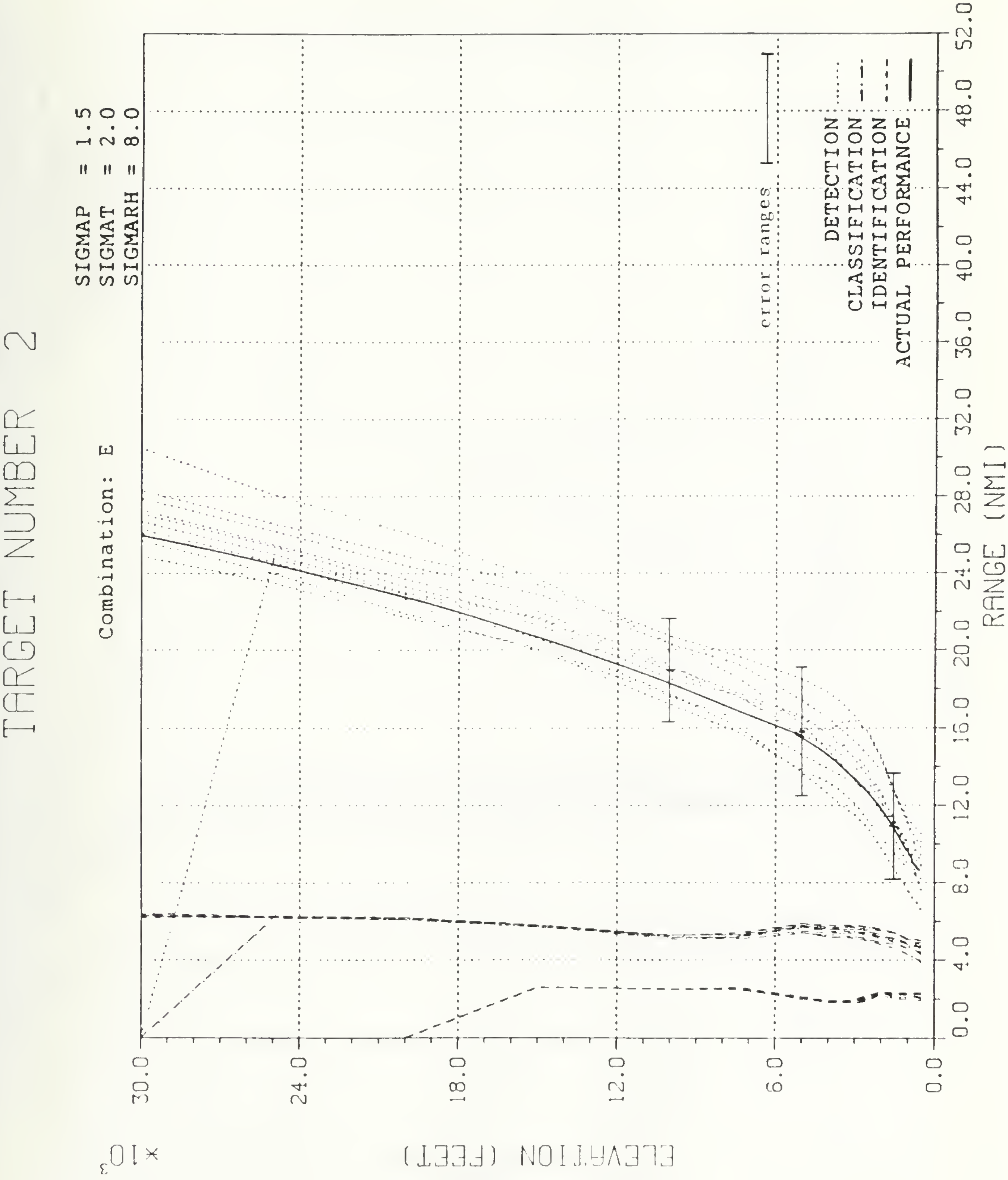

TARGET NUMBER 3
Combination: D
SIGMAP = 1.5
SIGMAT = 1.0
SIGMARH = 8.0
ELEVATION (FEET)
×10³
30.0
24.0
18.0
12.0
6.0
0.0
0.0
4.0
8.0
12.0
16.0
20.0
24.0
28.0
32.0
36.0
40.0
44.0
48.0
52.0
RANGE (NMI)
error ranges
DETECTION
CLASSIFICATION
IDENTIFICATION
ACTUAL PERFORMANCE



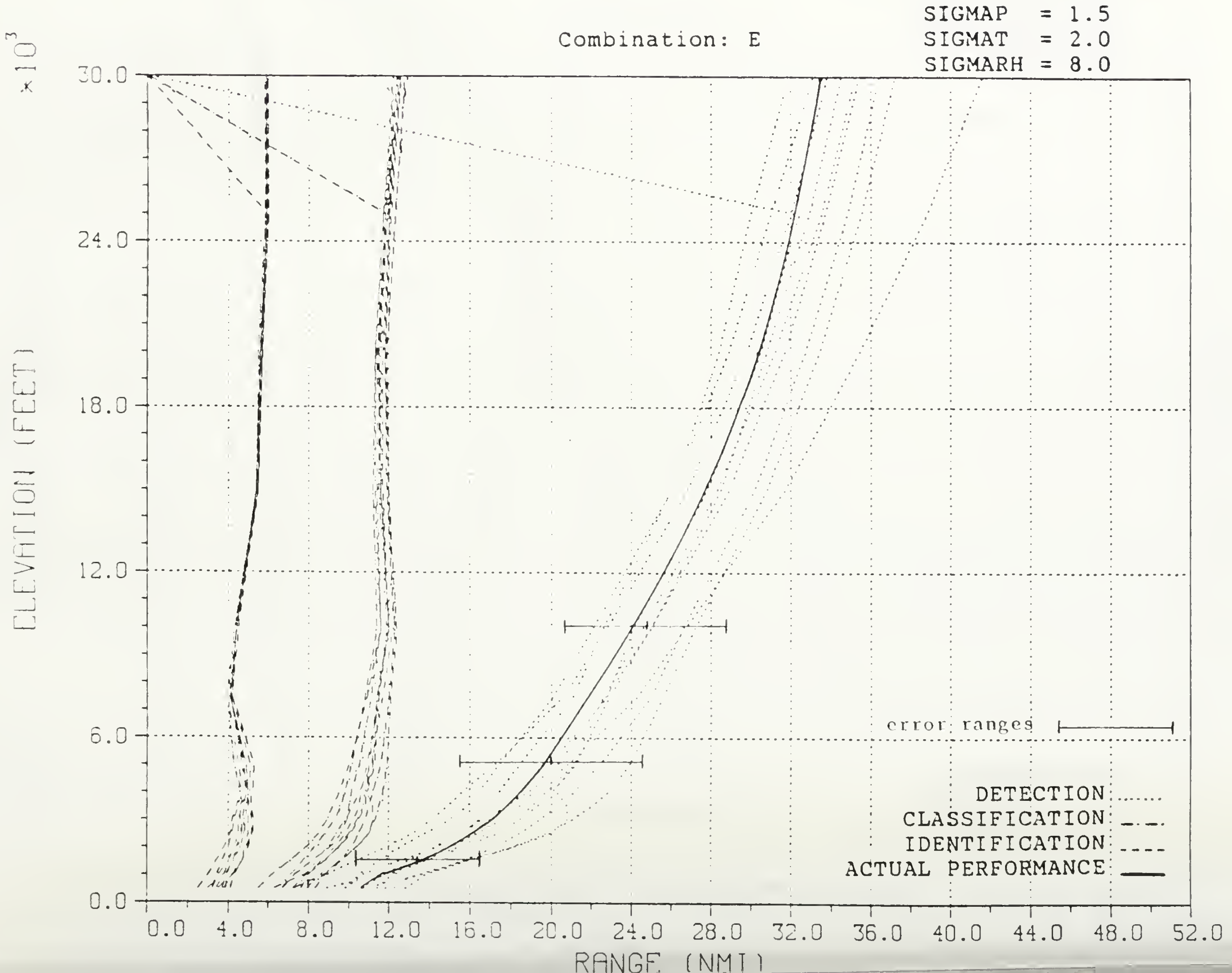
TARGET NUMBER 4
Combination: D
SIGMAP = 1.5
SIGMAT = 1.0
SIGMARH = 8.0
ELEVATION (FEET)
$\times 10^3$
30.0
24.0
18.0
12.0
6.0
0.0
RANGE (NMI)
0.0
4.0
8.0
12.0
16.0
20.0
24.0
28.0
32.0
36.0
40.0
44.0
48.0
52.0
error ranges
DETECTION
CLASSIFICATION
IDENTIFICATION
ACTUAL PERFORMANCE

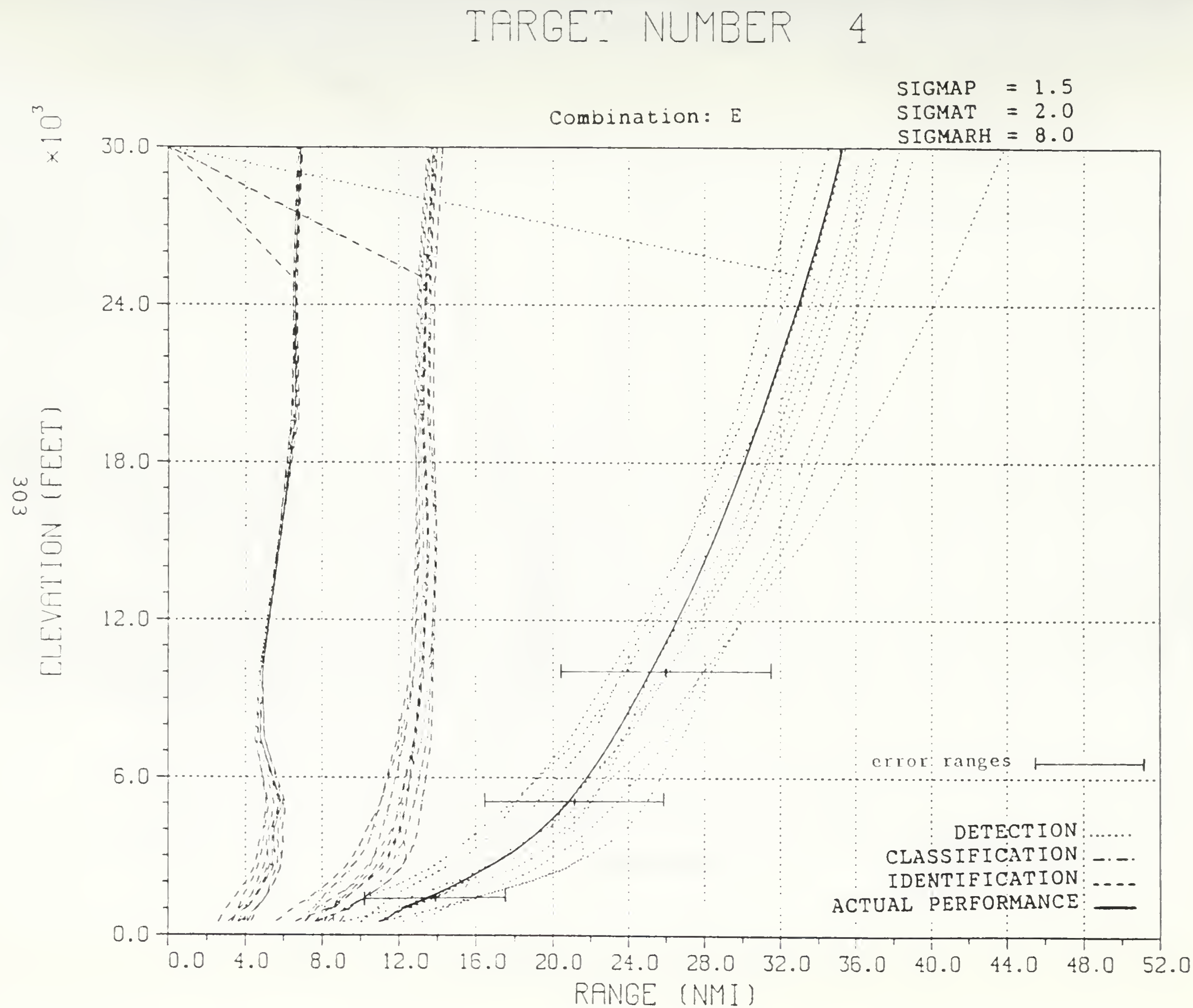


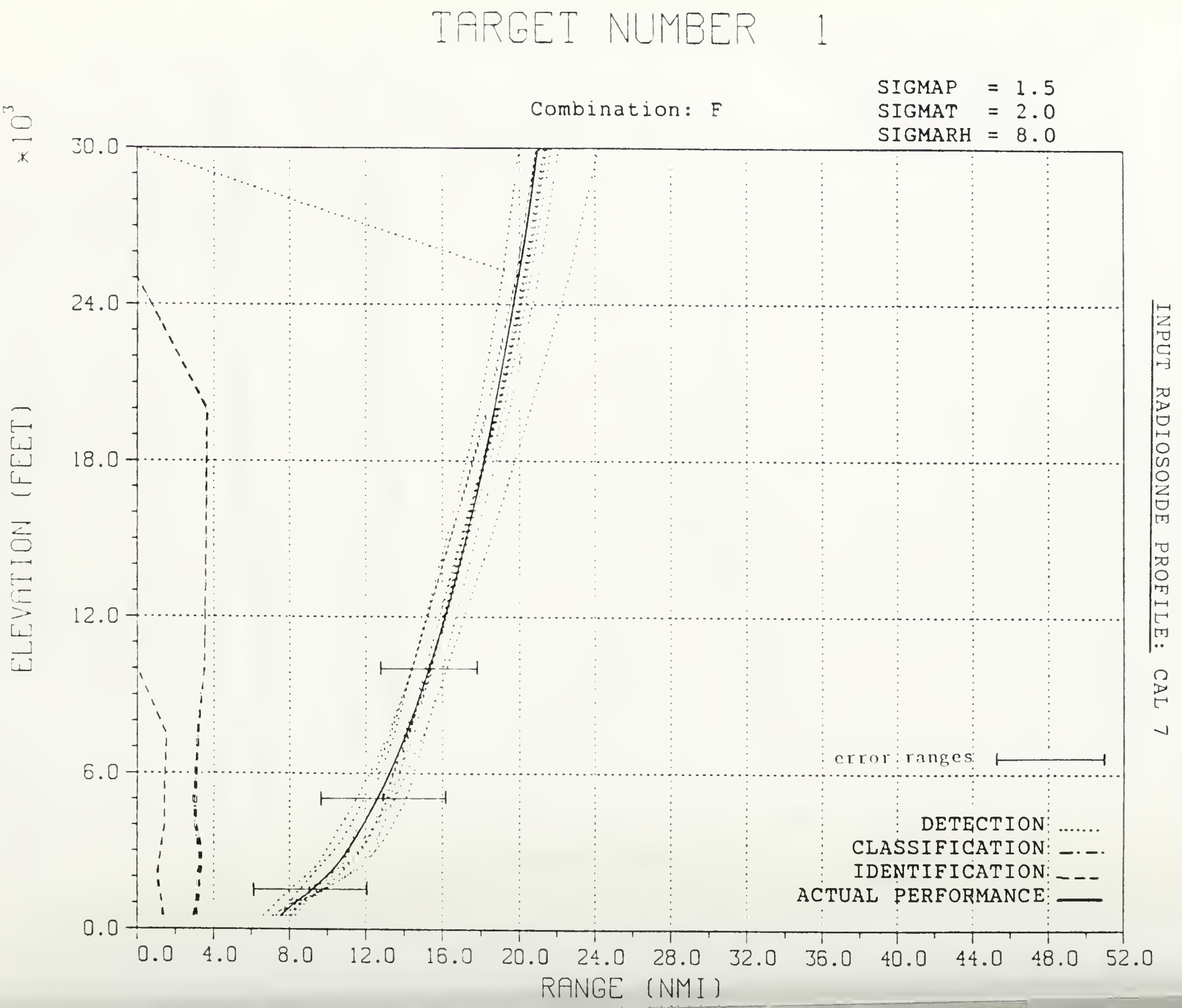
TARGET NUMBER 1
Combination: E
SIGMAP = 1.5
SIGMAT = 2.0
SIGMARH = 8.0
INPUT RADIOSONDE PROFILE: CAL 7
error ranges
DETECTION
CLASSIFICATION
IDENTIFICATION
ACTUAL PERFORMANCE
0.0 4.0 8.0 12.0 16.0 20.0 24.0 28.0 32.0 36.0 40.0 44.0 48.0 52.0
RANGE (NMI)
0.0 6.0 12.0 18.0 24.0 30.0
ELEVATION (FEET) ×10^3

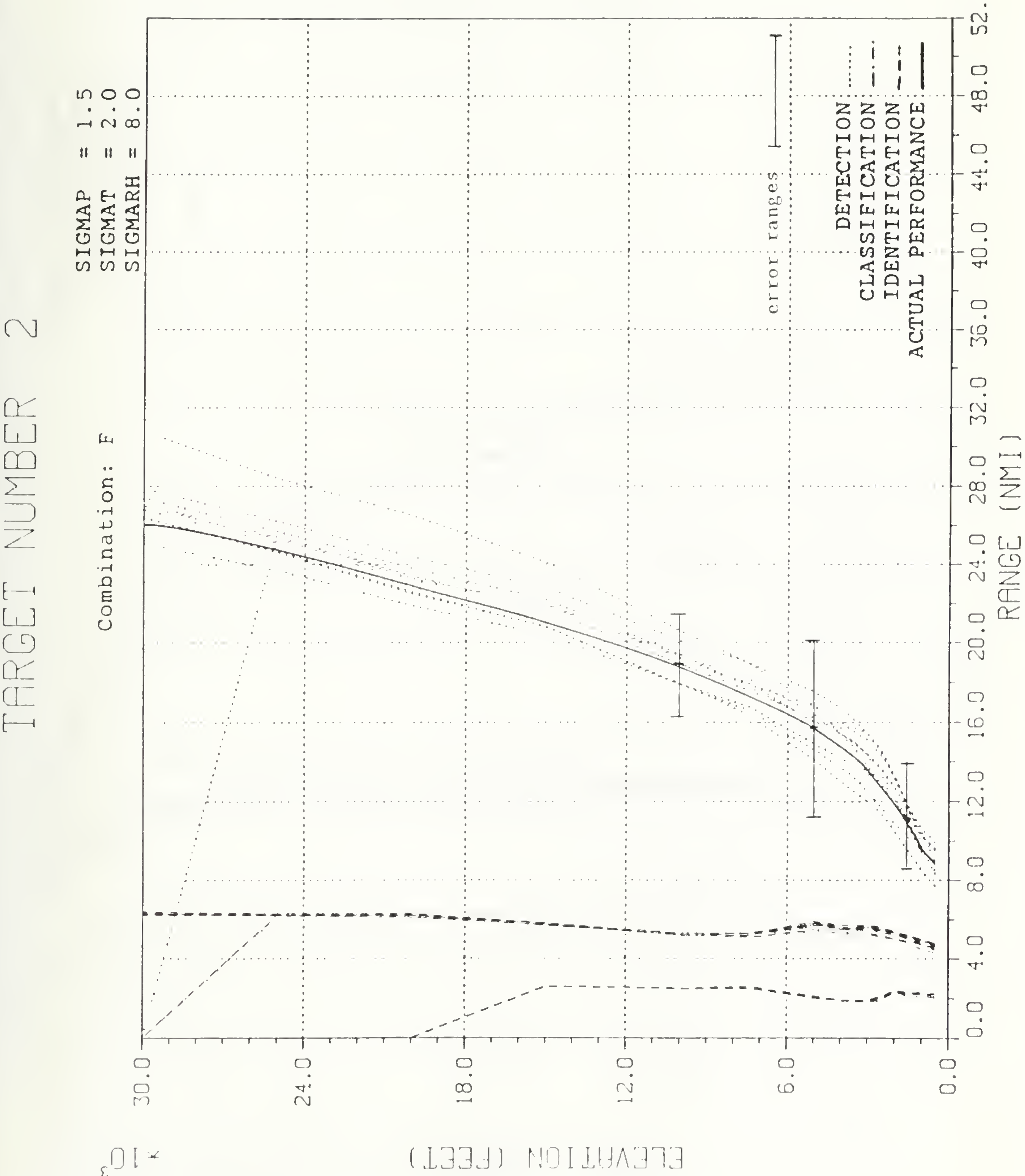

TARGET NUMBER 2
Combination: E
SIGMAP = 1.5
SIGMAT = 2.0
SIGMARH = 8.0
error ranges
DETECTION
CLASSIFICATION
IDENTIFICATION
ACTUAL PERFORMANCE
RANGE (NMI)
ELEVATION (FEET)
x10^3
0.0
4.0
8.0
12.0
16.0
20.0
24.0
28.0
32.0
36.0
40.0
44.0
48.0
52.0
6.0
18.0
30.0

TARGET NUMBER 3

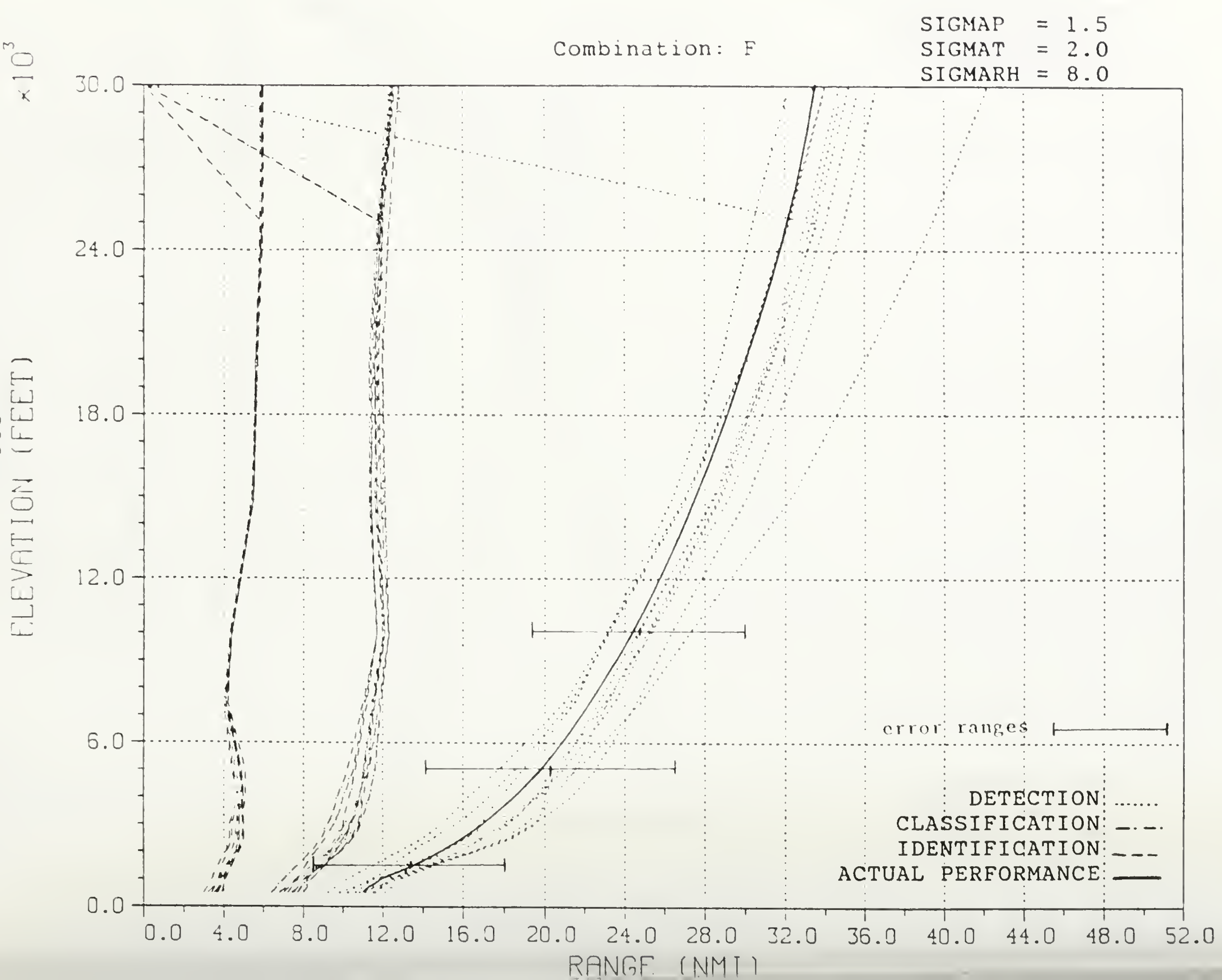


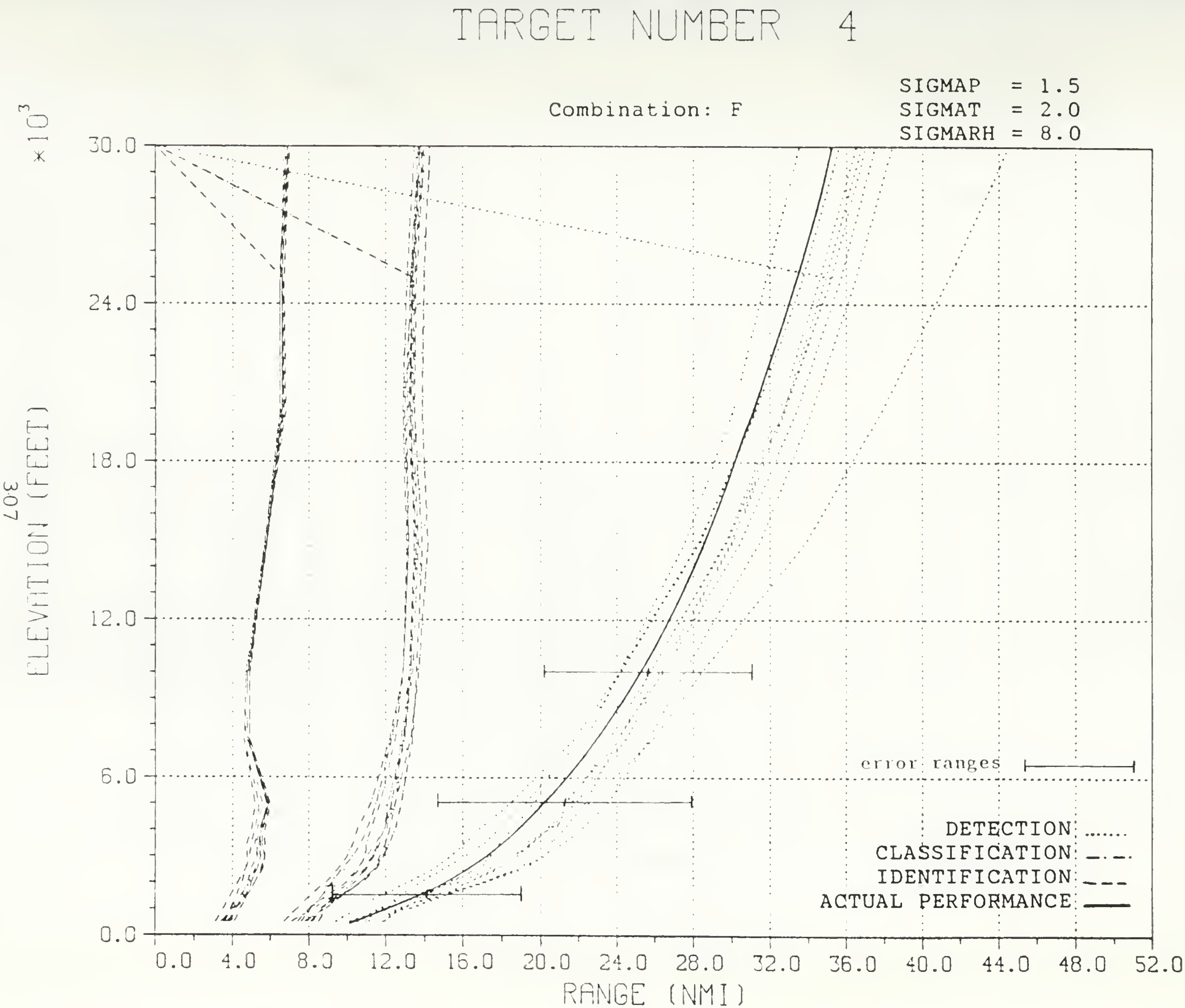

TARGET NUMBER 4
Combination: E
SIGMAP = 1.5
SIGMAT = 2.0
SIGMARH = 8.0
×10^3
ELEVATION (FEET)
30.0
24.0
18.0
12.0
6.0
0.0
0.0
4.0
8.0
12.0
16.0
20.0
24.0
28.0
32.0
36.0
40.0
44.0
48.0
52.0
RANGE (NMI)
error ranges
DETECTION
CLASSIFICATION
IDENTIFICATION
ACTUAL PERFORMANCE

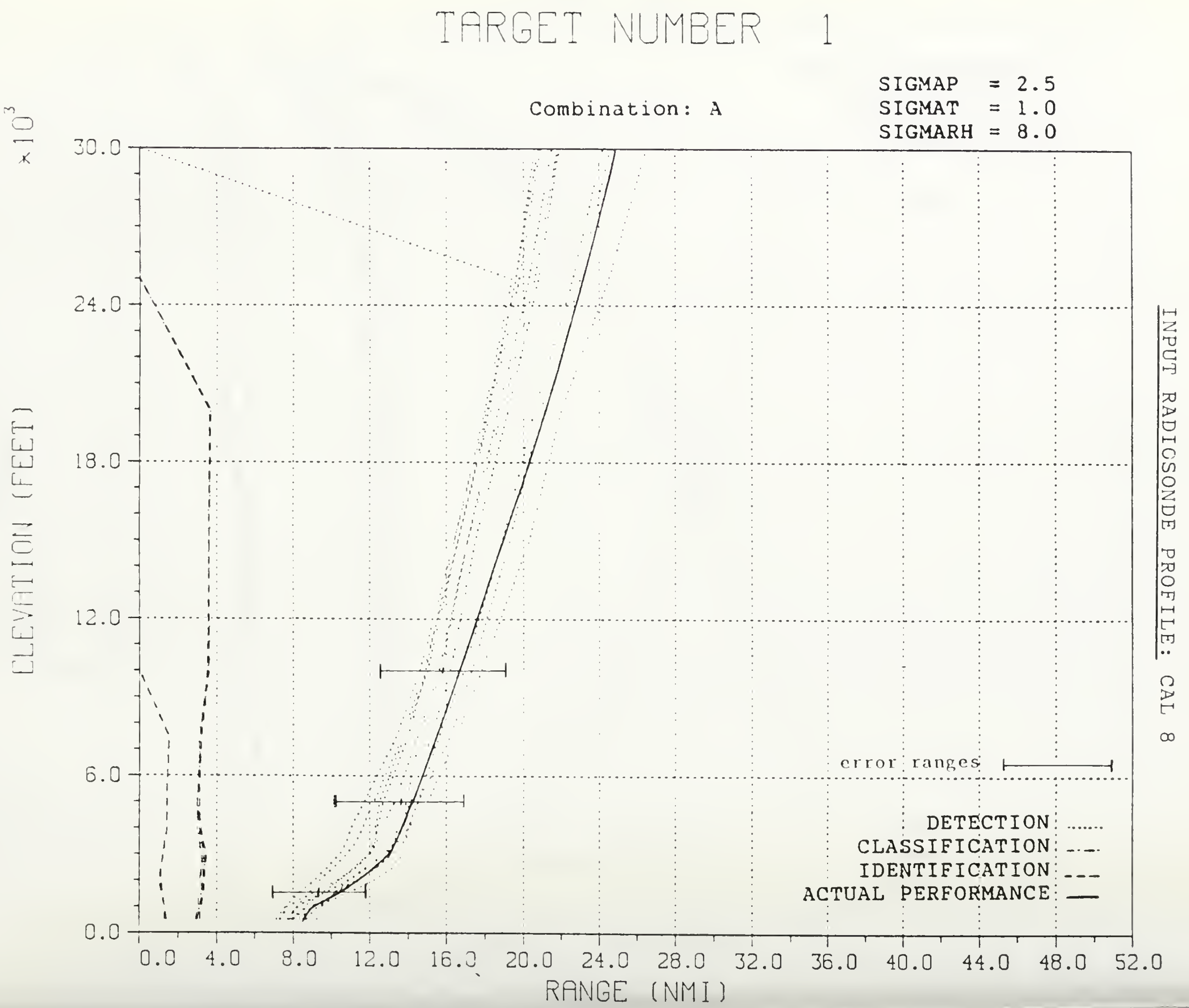

TARGET NUMBER 1
Combination: F
SIGMAP = 1.5
SIGMAT = 2.0
SIGMARH = 8.0
INPUT RADIOSONDE PROFILE: CAL 7
ELEVATION (FEET)
×10³
30.0
24.0
18.0
12.0
6.0
0.0
RANGE (NMI)
0.0
4.0
8.0
12.0
16.0
20.0
24.0
28.0
32.0
36.0
40.0
44.0
48.0
52.0
error ranges
DETECTION
CLASSIFICATION
IDENTIFICATION
ACTUAL PERFORMANCE


TARGET NUMBER 2
Combination: F
SIGMAP = 1.5
SIGMAT = 2.0
SIGMARH = 8.0
error ranges
DETECTION
CLASSIFICATION
IDENTIFICATION
ACTUAL PERFORMANCE
RANGE (NMI)
ELEVATION (FEET)
×10³
0.0
4.0
8.0
12.0
16.0
20.0
24.0
28.0
32.0
36.0
40.0
44.0
48.0
52.0
6.0
18.0
30.0

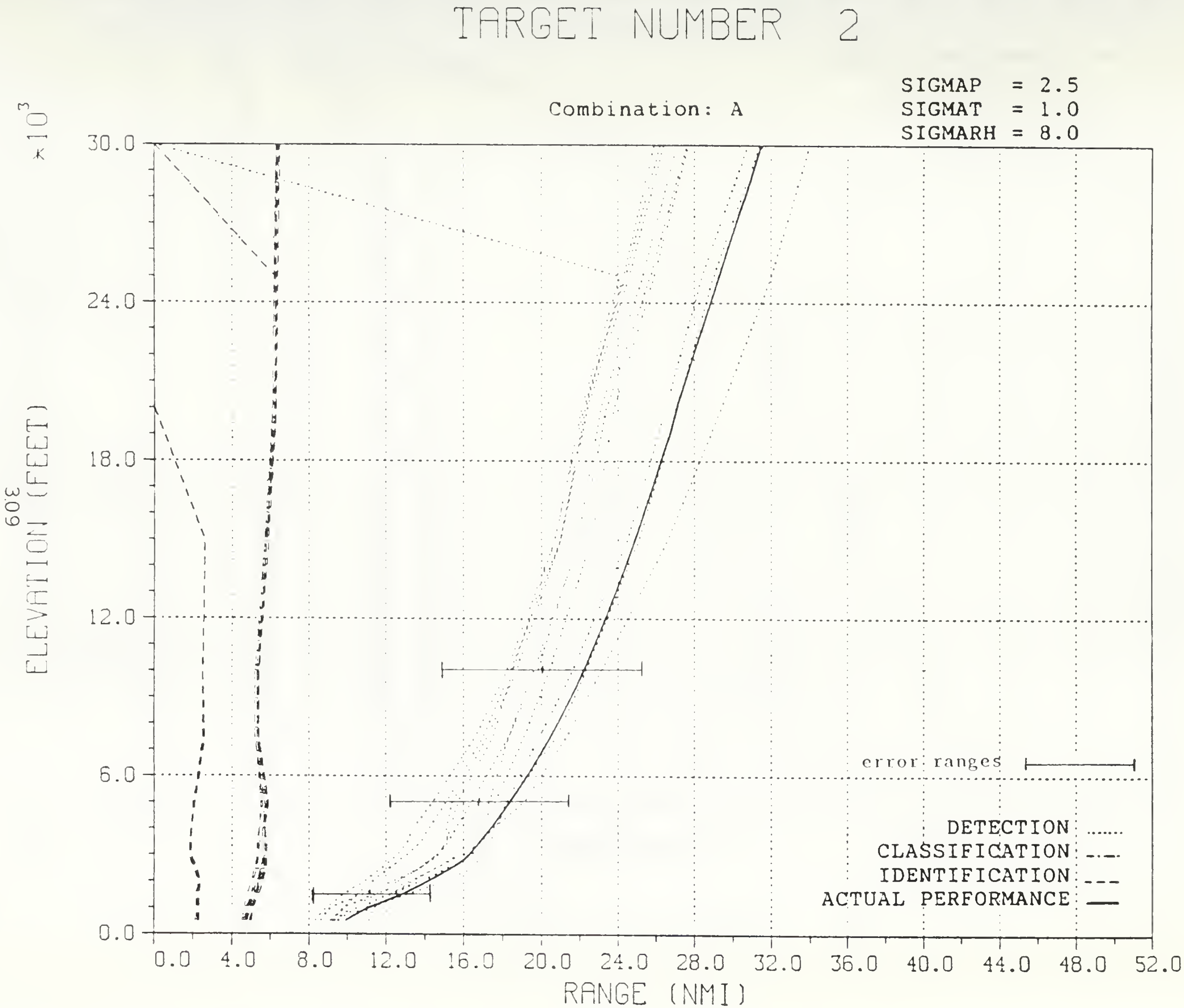
TARGET NUMBER 3




TARGET NUMBER 4
Combination: F
SIGMAP = 1.5
SIGMAT = 2.0
SIGMARH = 8.0
error ranges
DETECTION
CLASSIFICATION
IDENTIFICATION
ACTUAL PERFORMANCE
ELEVATION (FEET)
$\times 10^3$
RANGE (NMI)
30.0
24.0
18.0
12.0
6.0
0.0
0.0 4.0 8.0 12.0 16.0 20.0 24.0 28.0 32.0 36.0 40.0 44.0 48.0 52.0

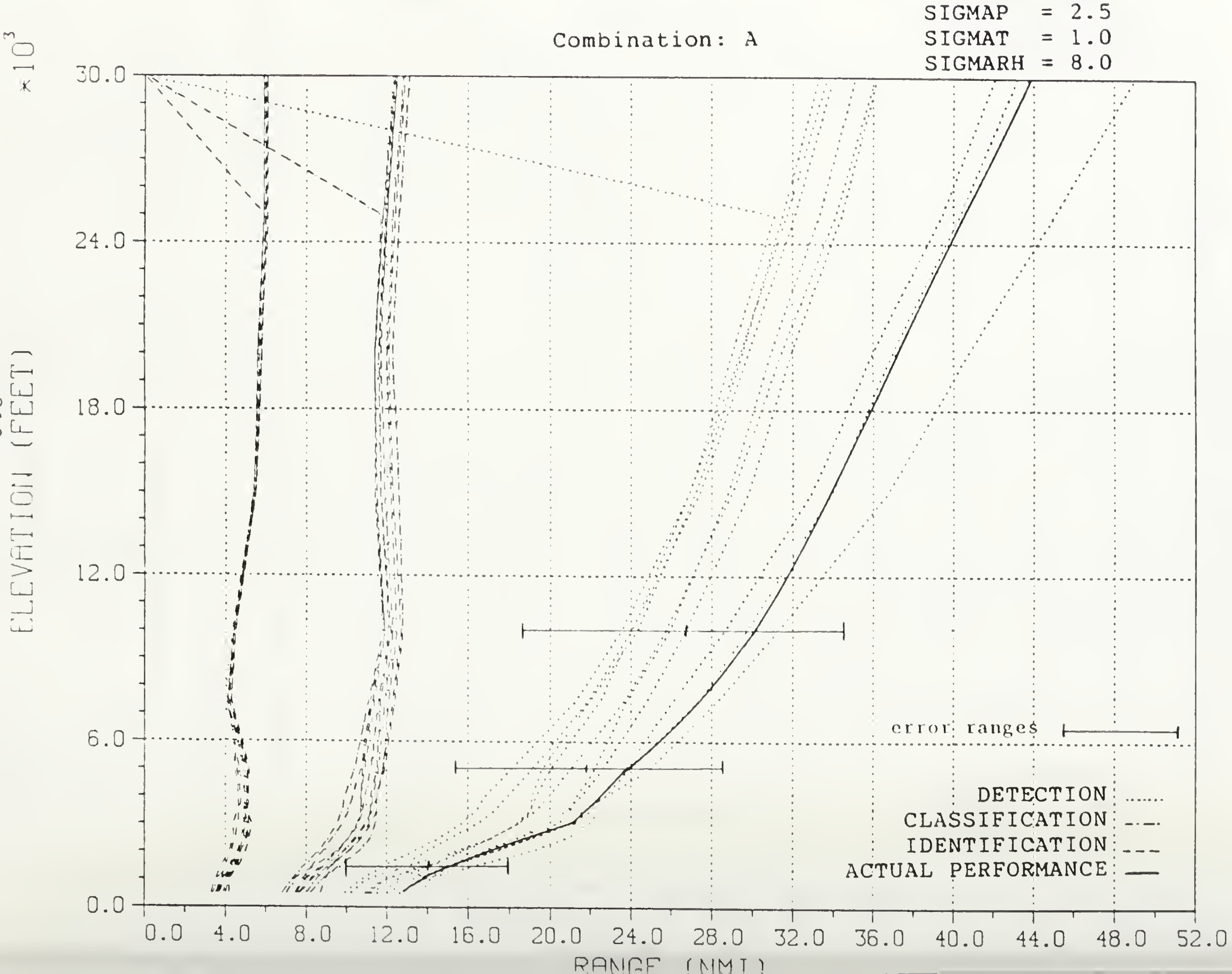


TARGET NUMBER 1
Combination: A
SIGMAP = 2.5
SIGMAT = 1.0
SIGMARH = 8.0
INPUT RADIOSONDE PROFILE: CAL 8
ELEVATION (FEET)
x10^3
RANGE (NMI)
30.0
24.0
18.0
12.0
6.0
0.0
0.0
4.0
8.0
12.0
16.0
20.0
24.0
28.0
32.0
36.0
40.0
44.0
48.0
52.0
error ranges
DETECTION
CLASSIFICATION
IDENTIFICATION
ACTUAL PERFORMANCE

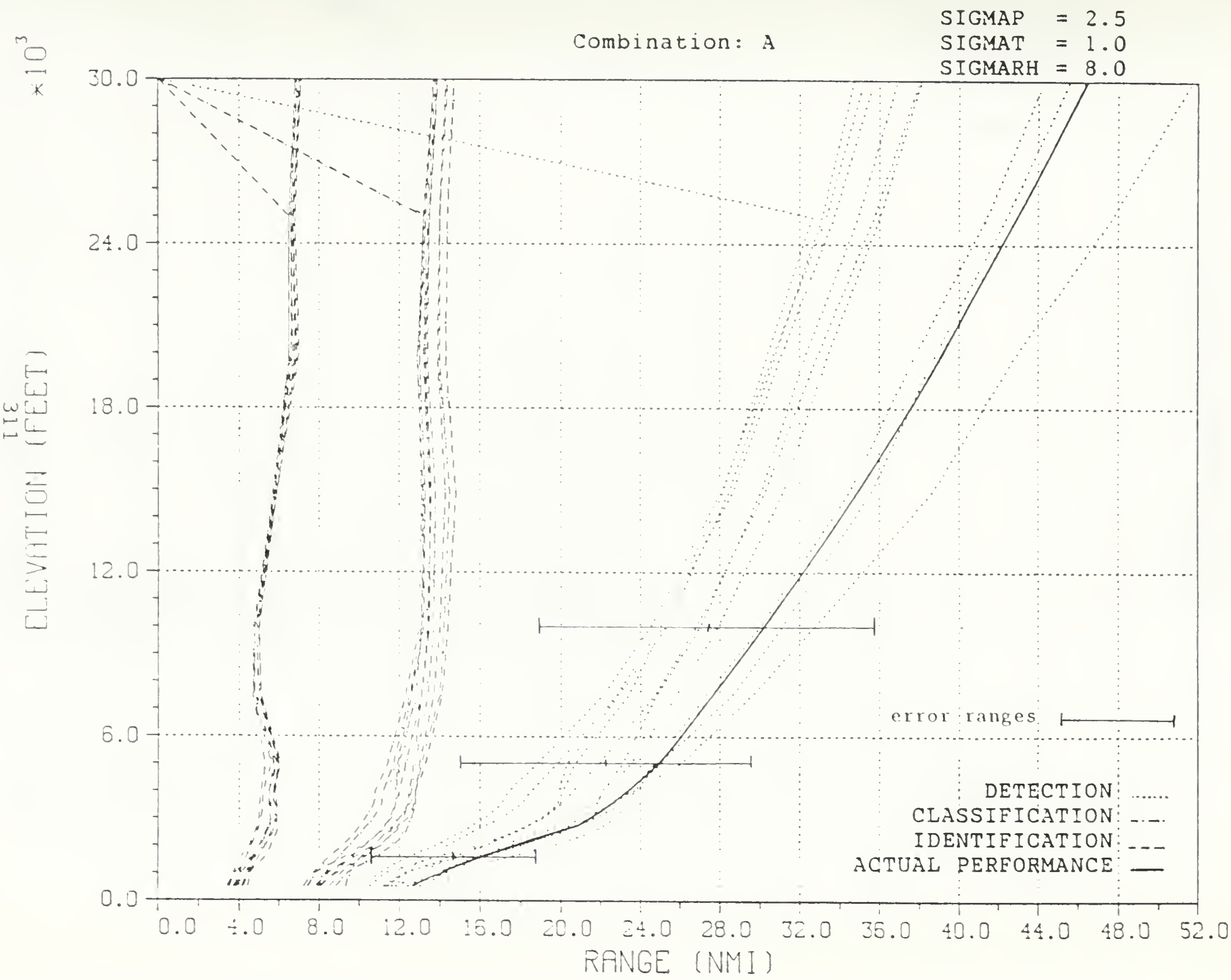


TARGET NUMBER 2
Combination: A
SIGMAP = 2.5
SIGMAT = 1.0
SIGMARH = 8.0
$\times 10^3$
ELEVATION (FEET)
30.0
24.0
18.0
12.0
6.0
0.0
0.0
4.0
8.0
12.0
16.0
20.0
24.0
28.0
32.0
36.0
40.0
44.0
48.0
52.0
RANGE (NMI)
error ranges
DETECTION
CLASSIFICATION
IDENTIFICATION
ACTUAL PERFORMANCE

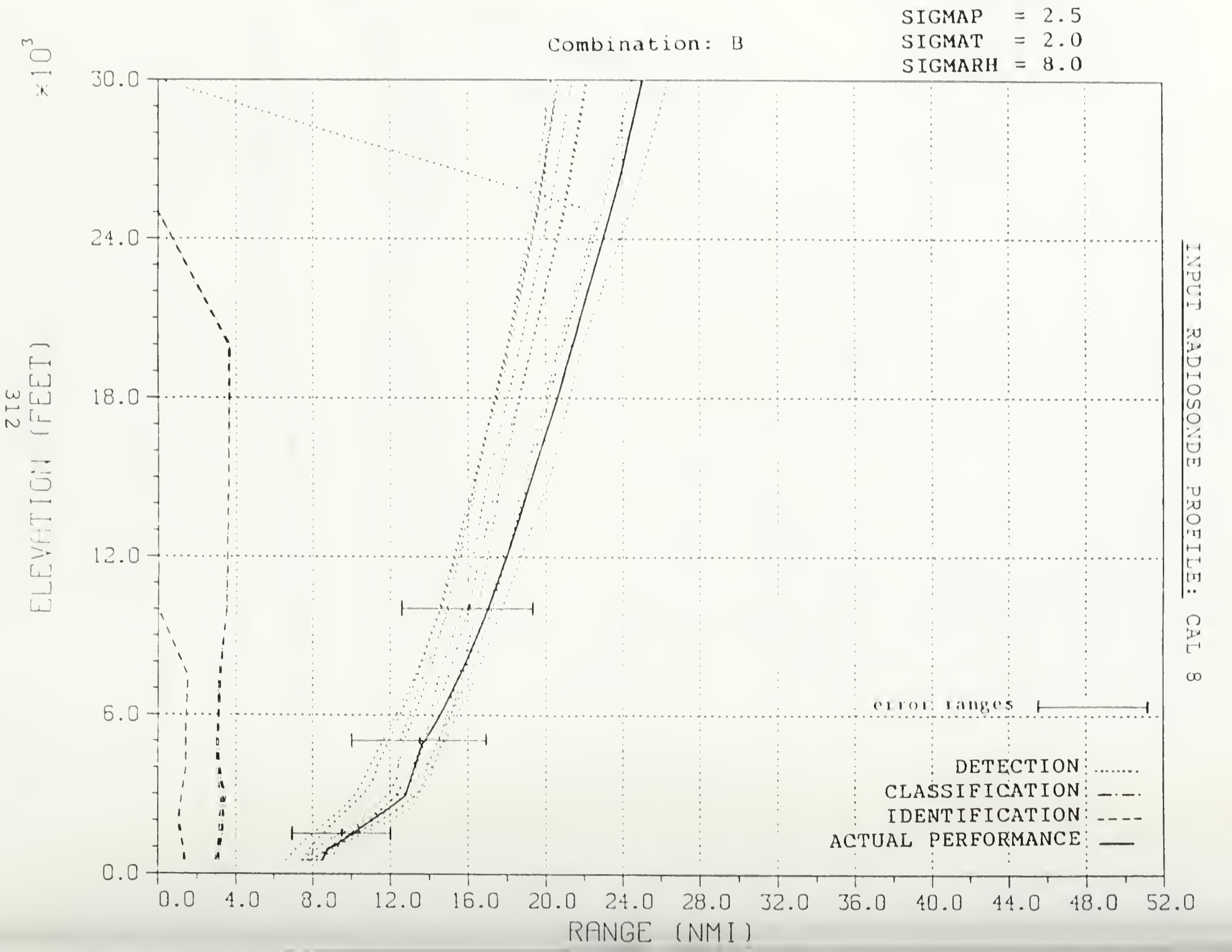
TARGET NUMBER 3

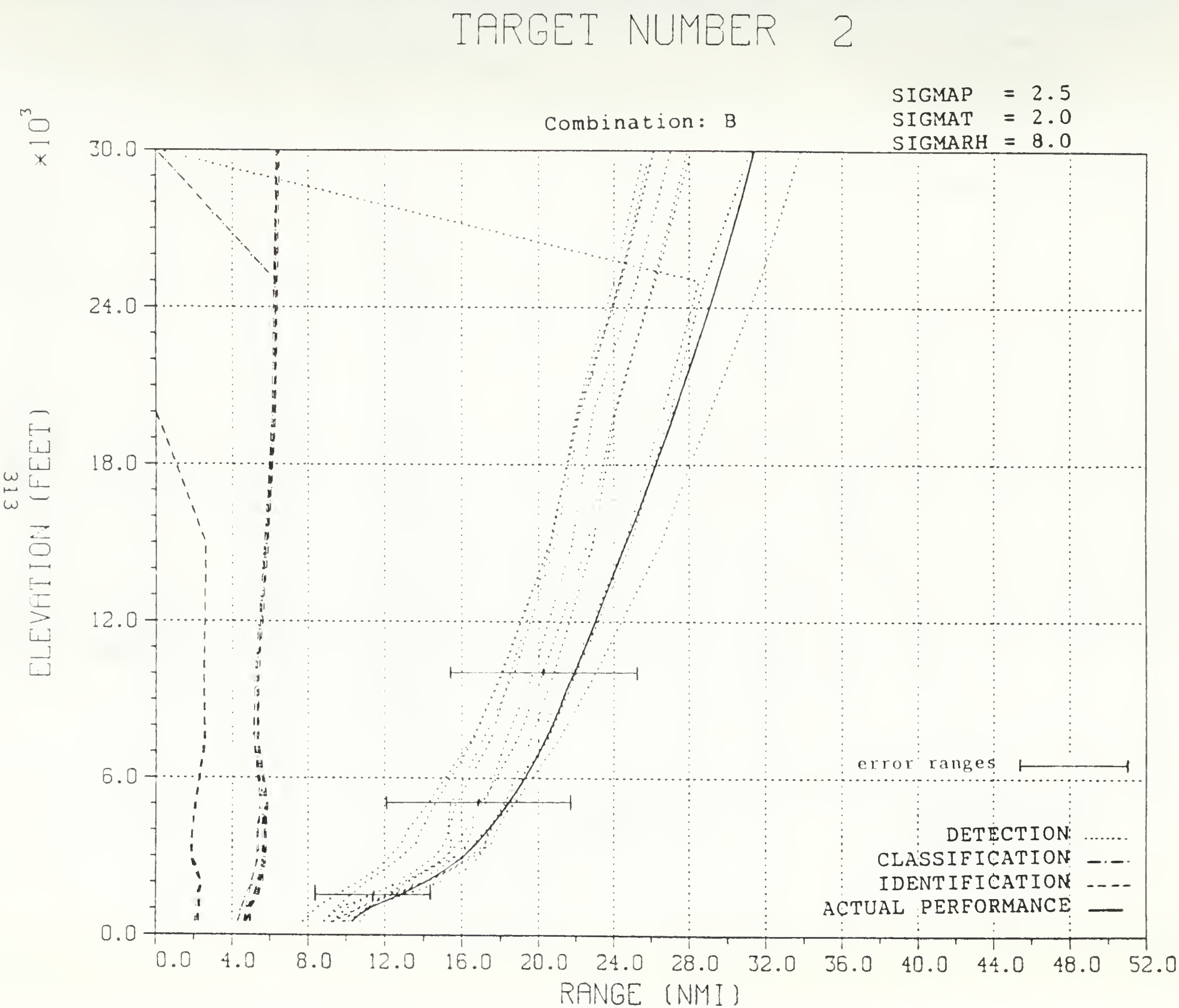


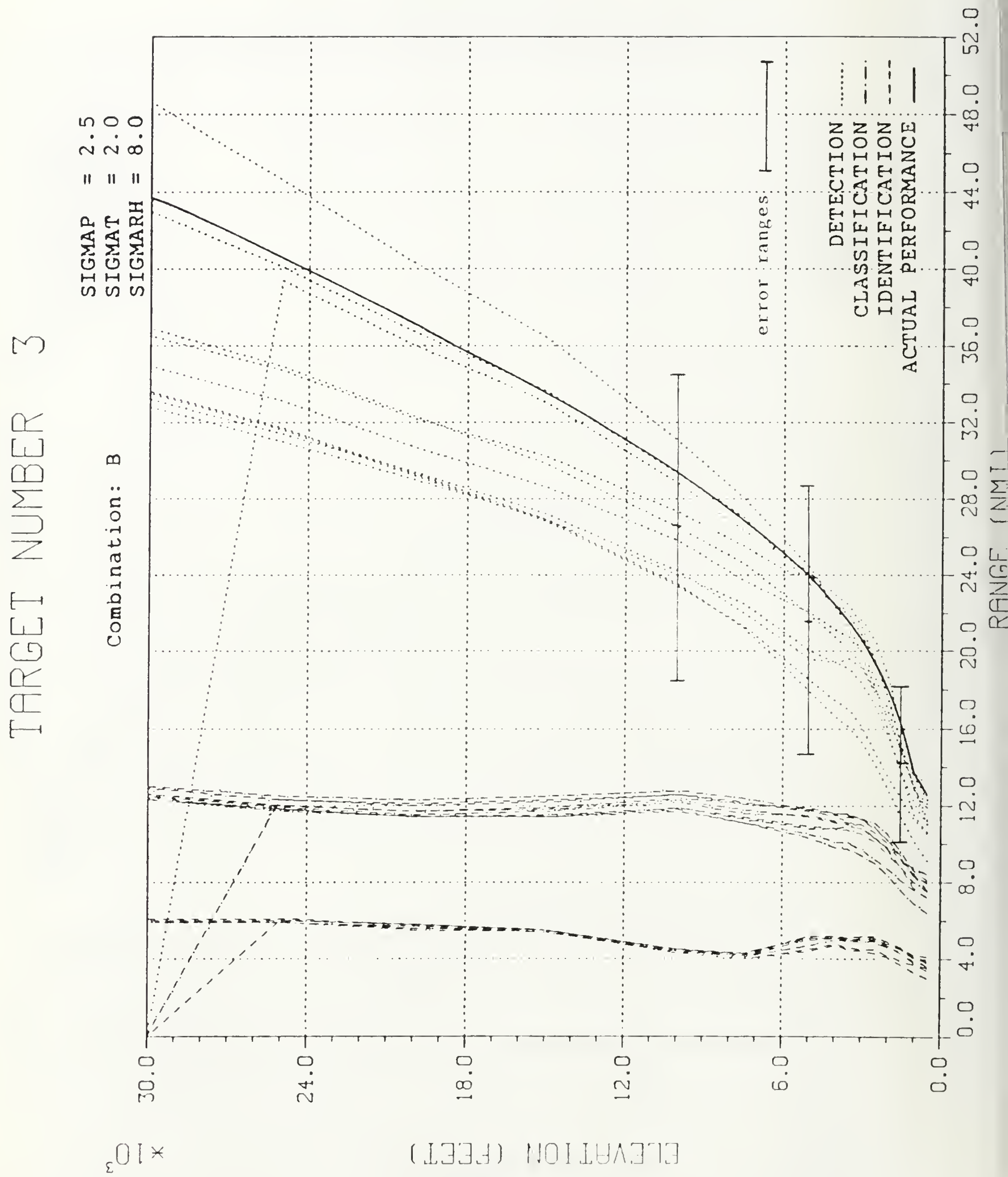
TARGET NUMBER 4



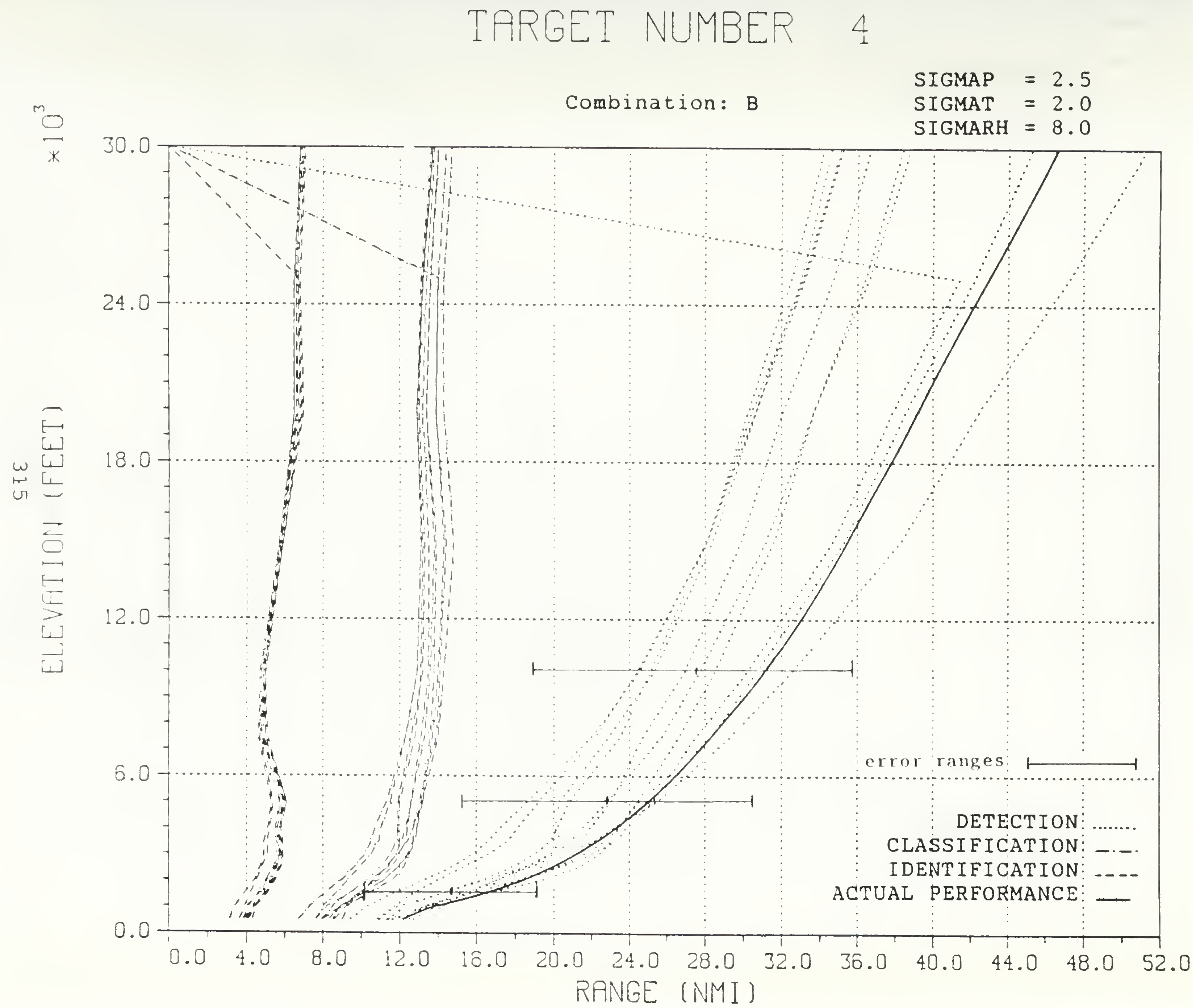
TARGET NUMBER 1



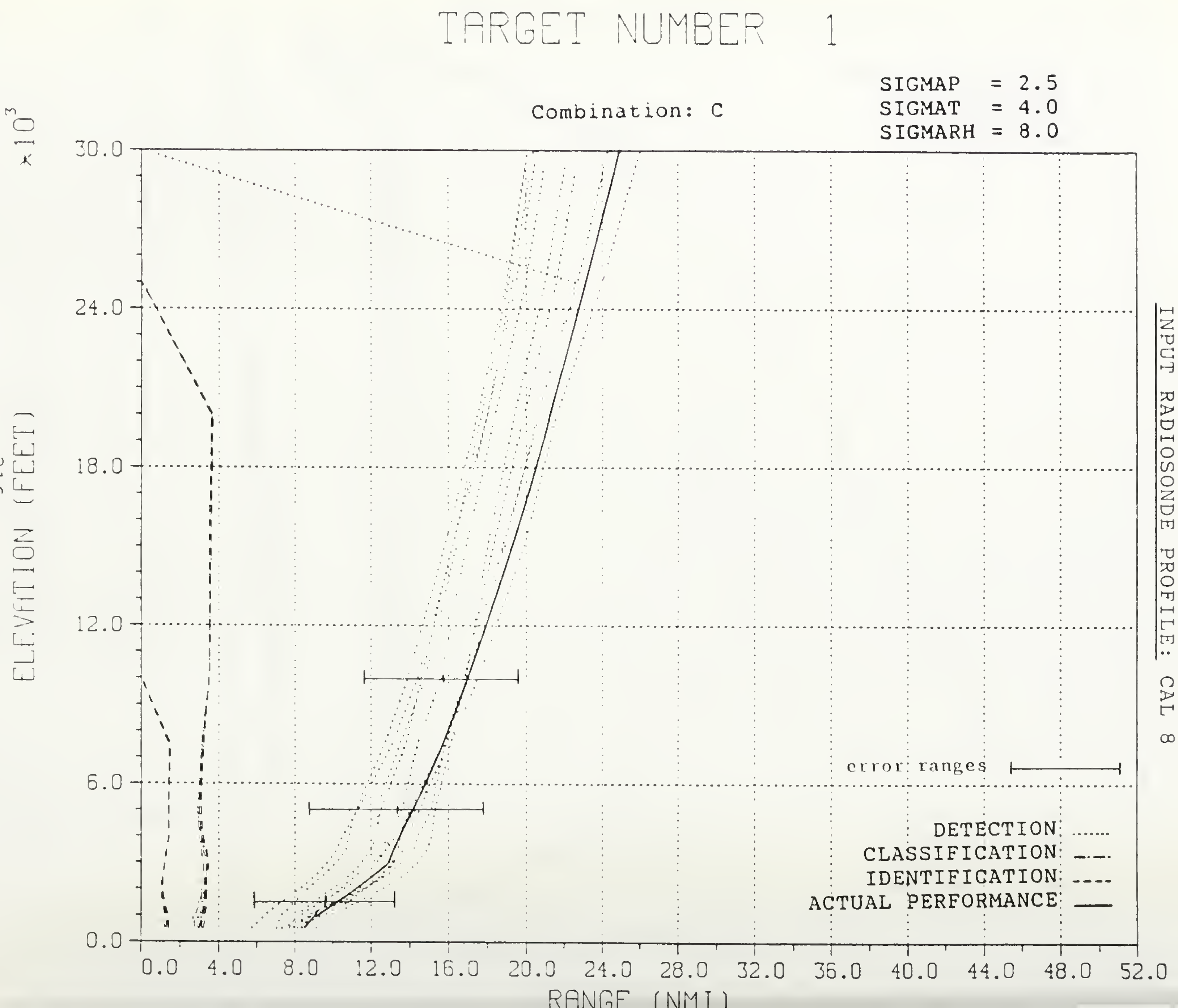

TARGET NUMBER 2
Combination: B
SIGMAP = 2.5
SIGMAT = 2.0
SIGMARH = 8.0
ELEVATION (FEET)
$\times 10^3$
30.0
24.0
18.0
12.0
6.0
0.0
0.0
4.0
8.0
12.0
16.0
20.0
24.0
28.0
32.0
36.0
40.0
44.0
48.0
52.0
RANGE (NMI)
error ranges
DETECTION
CLASSIFICATION
IDENTIFICATION
ACTUAL PERFORMANCE



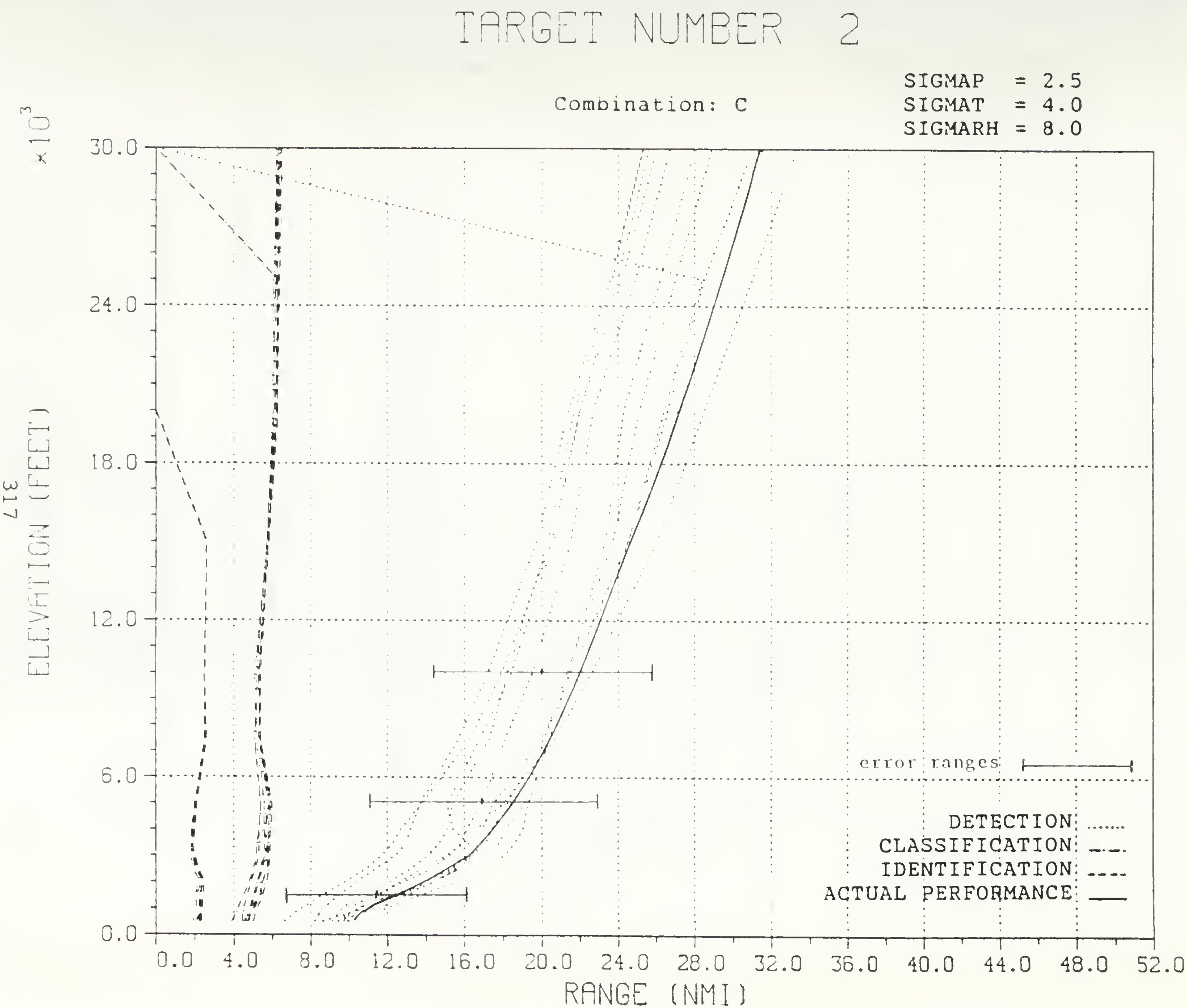
TARGET NUMBER 3
Combination: B
SIGMAP = 2.5
SIGMAT = 2.0
SIGMARH = 8.0
error ranges
DETECTION
CLASSIFICATION
IDENTIFICATION
ACTUAL PERFORMANCE
RANGE (NMI)
ELEVATION (FEET)
x10³
0.0
4.0
8.0
12.0
16.0
20.0
24.0
28.0
32.0
36.0
40.0
44.0
48.0
52.0
0.0
6.0
12.0
18.0
24.0
30.0

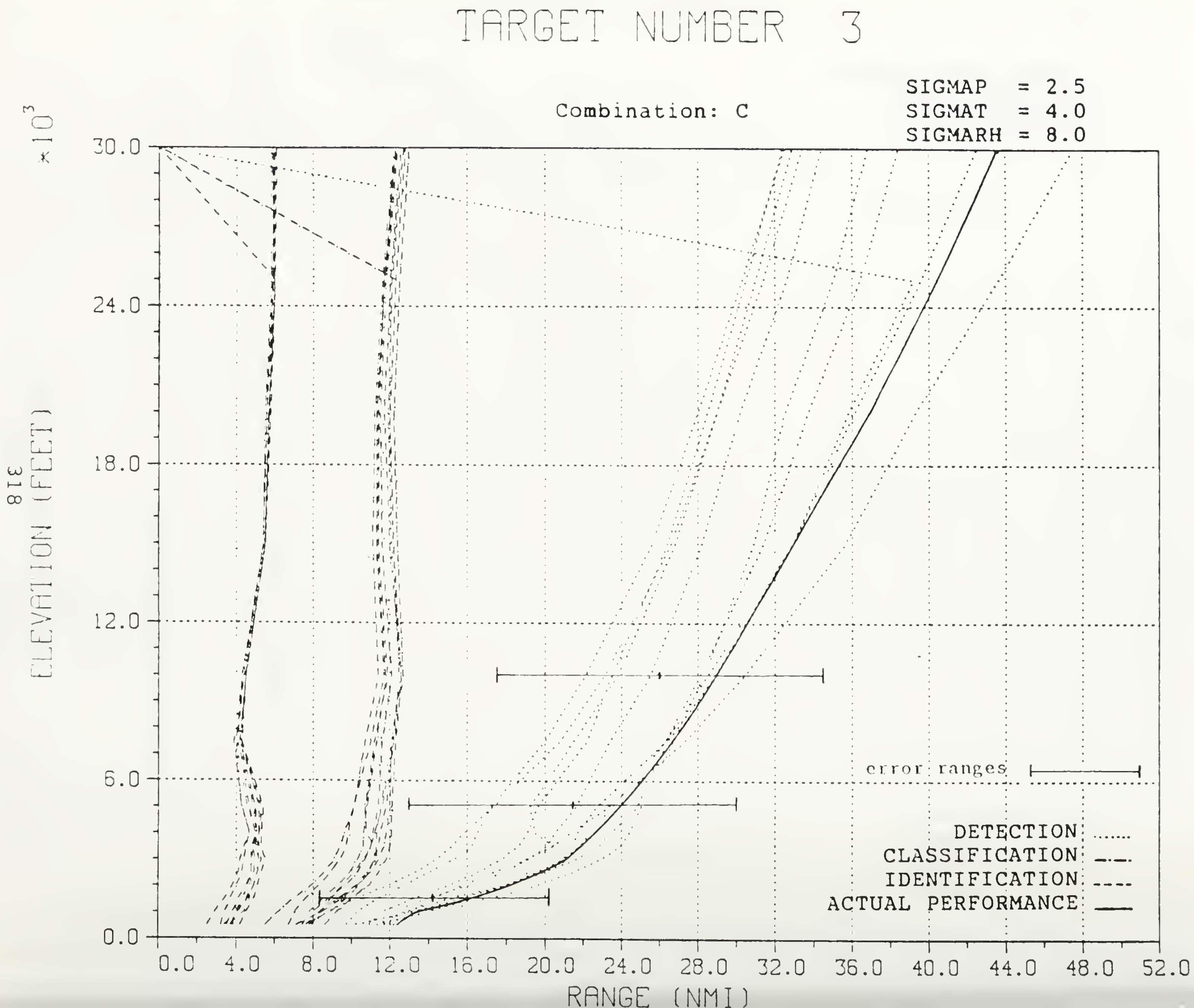


TARGET NUMBER 4
Combination: B
SIGMAP = 2.5
SIGMAT = 2.0
SIGMARH = 8.0
ELEVATION (FEET)
$\times 10^3$
30.0
24.0
18.0
12.0
6.0
0.0
0.0
4.0
8.0
12.0
16.0
20.0
24.0
28.0
32.0
36.0
40.0
44.0
48.0
52.0
RANGE (NMI)
error ranges
DETECTION
CLASSIFICATION
IDENTIFICATION
ACTUAL PERFORMANCE

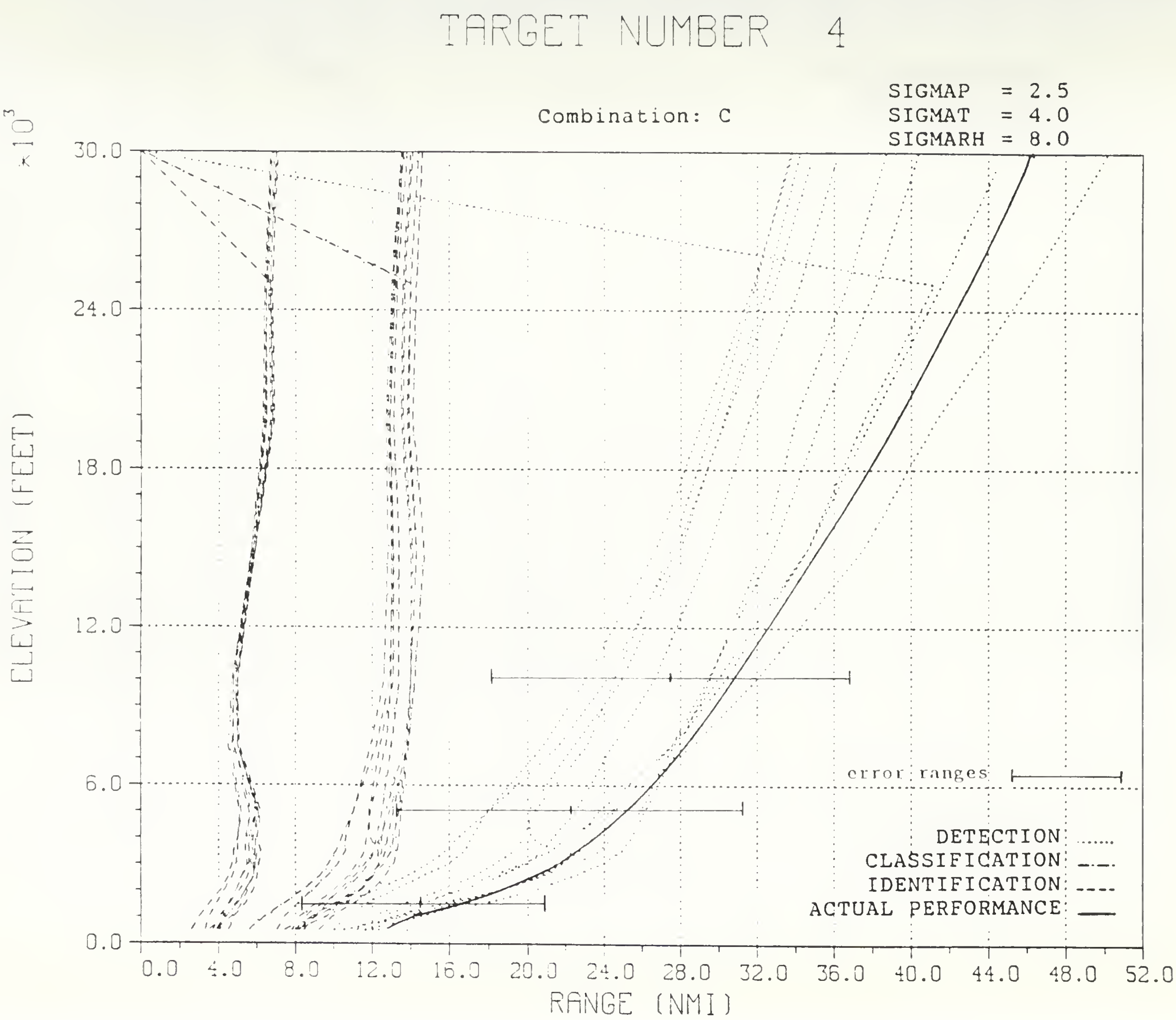


TARGET NUMBER 1
Combination: C
SIGMAP = 2.5
SIGMAT = 4.0
SIGMARH = 8.0
INPUT RADIOSONDE PROFILE: CAL 8
ELEVATION (FEET)
$\times 10^3$
30.0
24.0
18.0
12.0
6.0
0.0
RANGE (NMI)
0.0
4.0
8.0
12.0
16.0
20.0
24.0
28.0
32.0
36.0
40.0
44.0
48.0
52.0
error ranges
DETECTION
CLASSIFICATION
IDENTIFICATION
ACTUAL PERFORMANCE

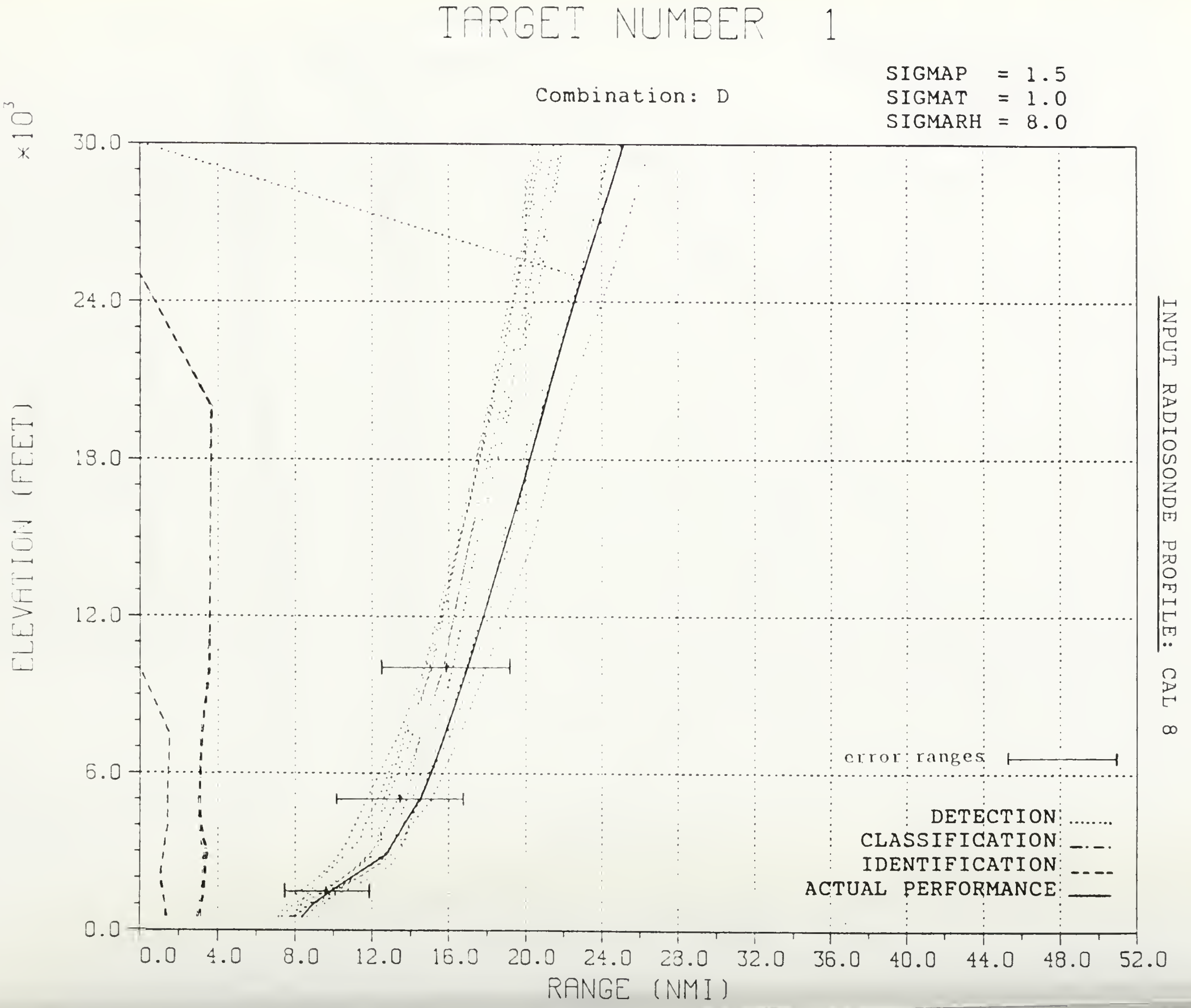

TARGET NUMBER 2
Combination: C
SIGMAP = 2.5
SIGMAT = 4.0
SIGMARH = 8.0
$\times 10^3$
ELEVATION (FEET)
30.0
24.0
18.0
12.0
6.0
0.0
0.0
4.0
8.0
12.0
16.0
20.0
24.0
28.0
32.0
36.0
40.0
44.0
48.0
52.0
RANGE (NMI)
error ranges
DETECTION
CLASSIFICATION
IDENTIFICATION
ACTUAL PERFORMANCE

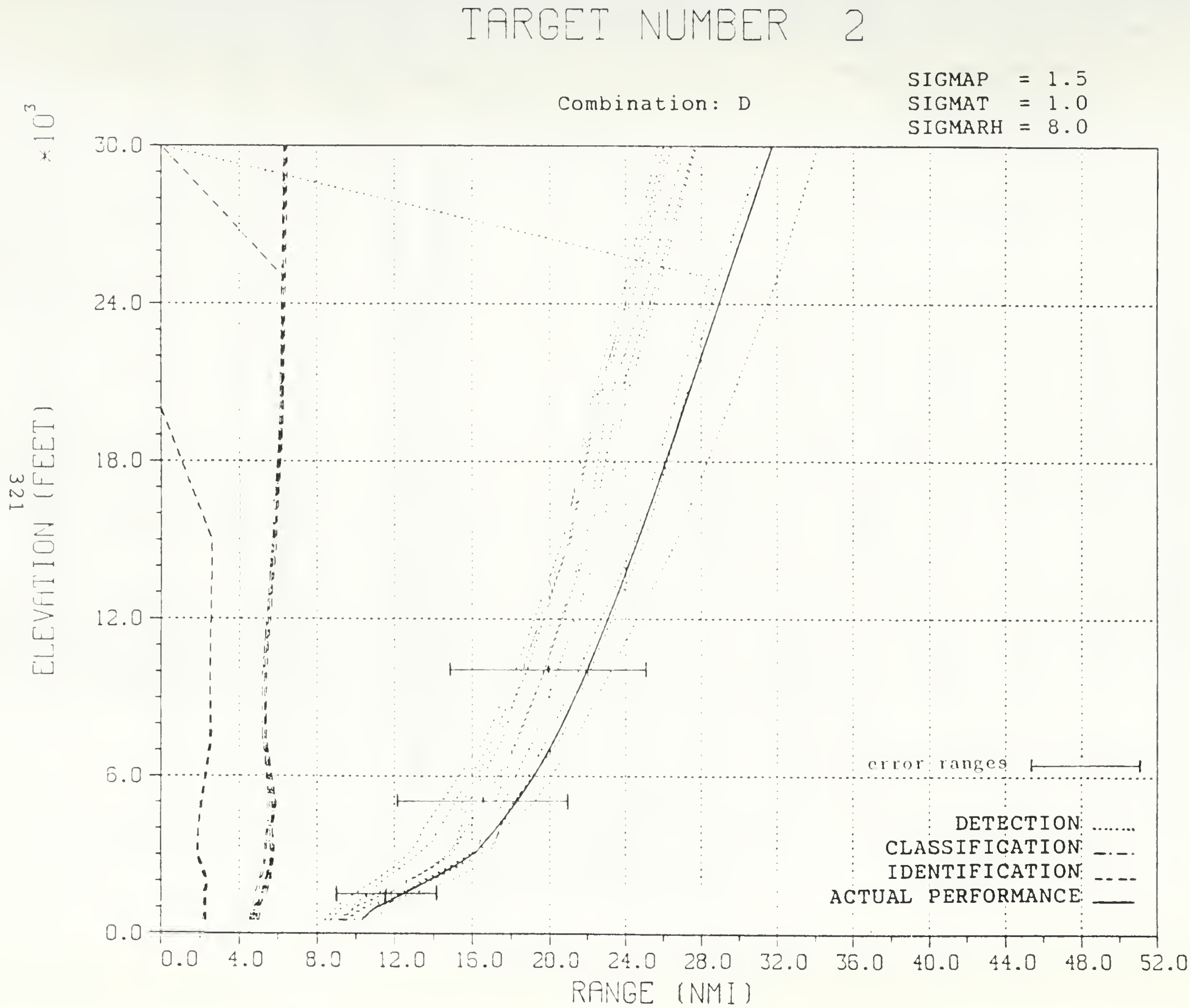


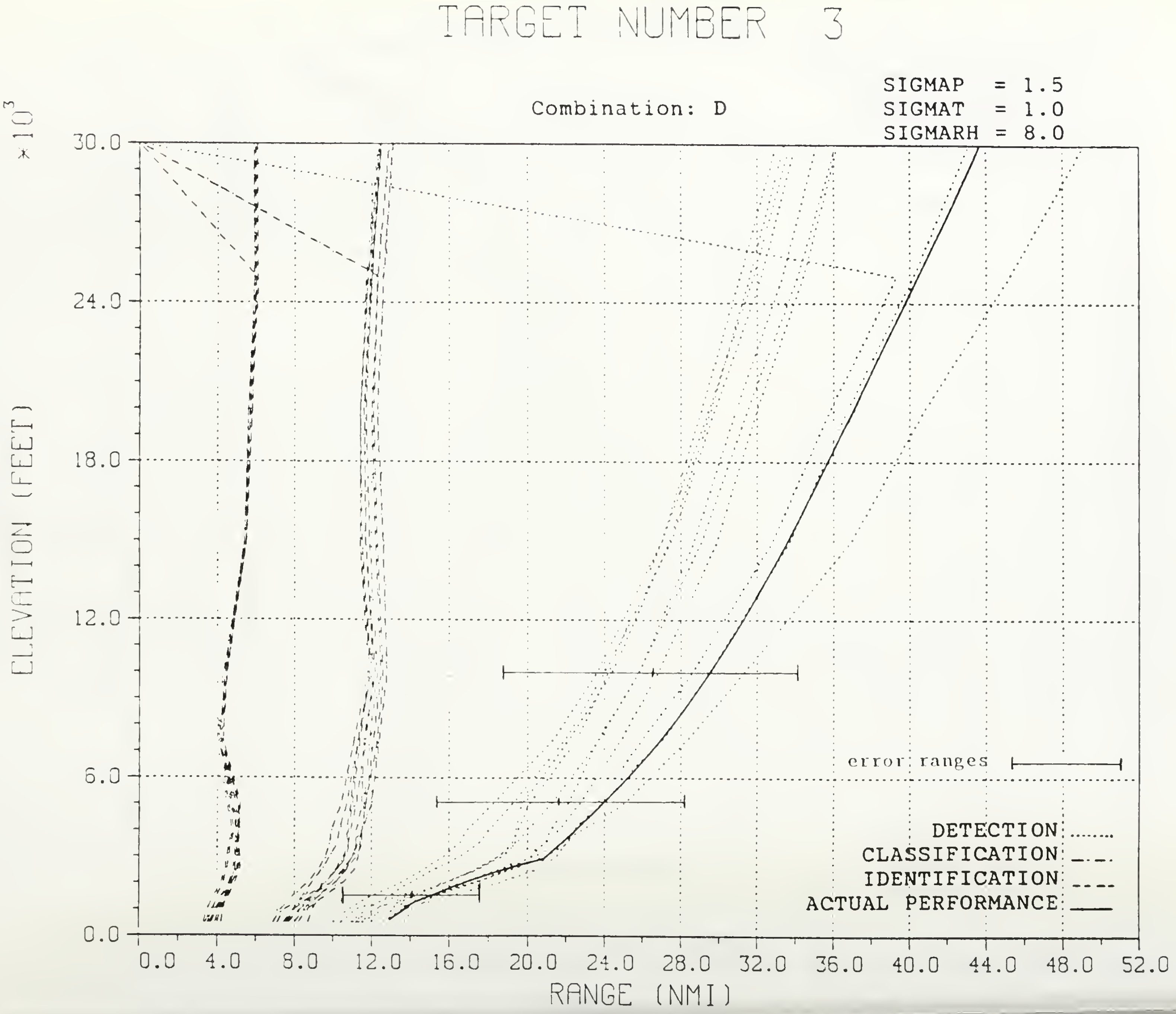
TARGET NUMBER 3
Combination: C
SIGMAP = 2.5
SIGMAT = 4.0
SIGMARH = 8.0
ELEVATION (FEET)
*10^3
30.0
24.0
18.0
12.0
6.0
0.0
RANGE (NMI)
0.0
4.0
8.0
12.0
16.0
20.0
24.0
28.0
32.0
36.0
40.0
44.0
48.0
52.0
error ranges
DETECTION
CLASSIFICATION
IDENTIFICATION
ACTUAL PERFORMANCE



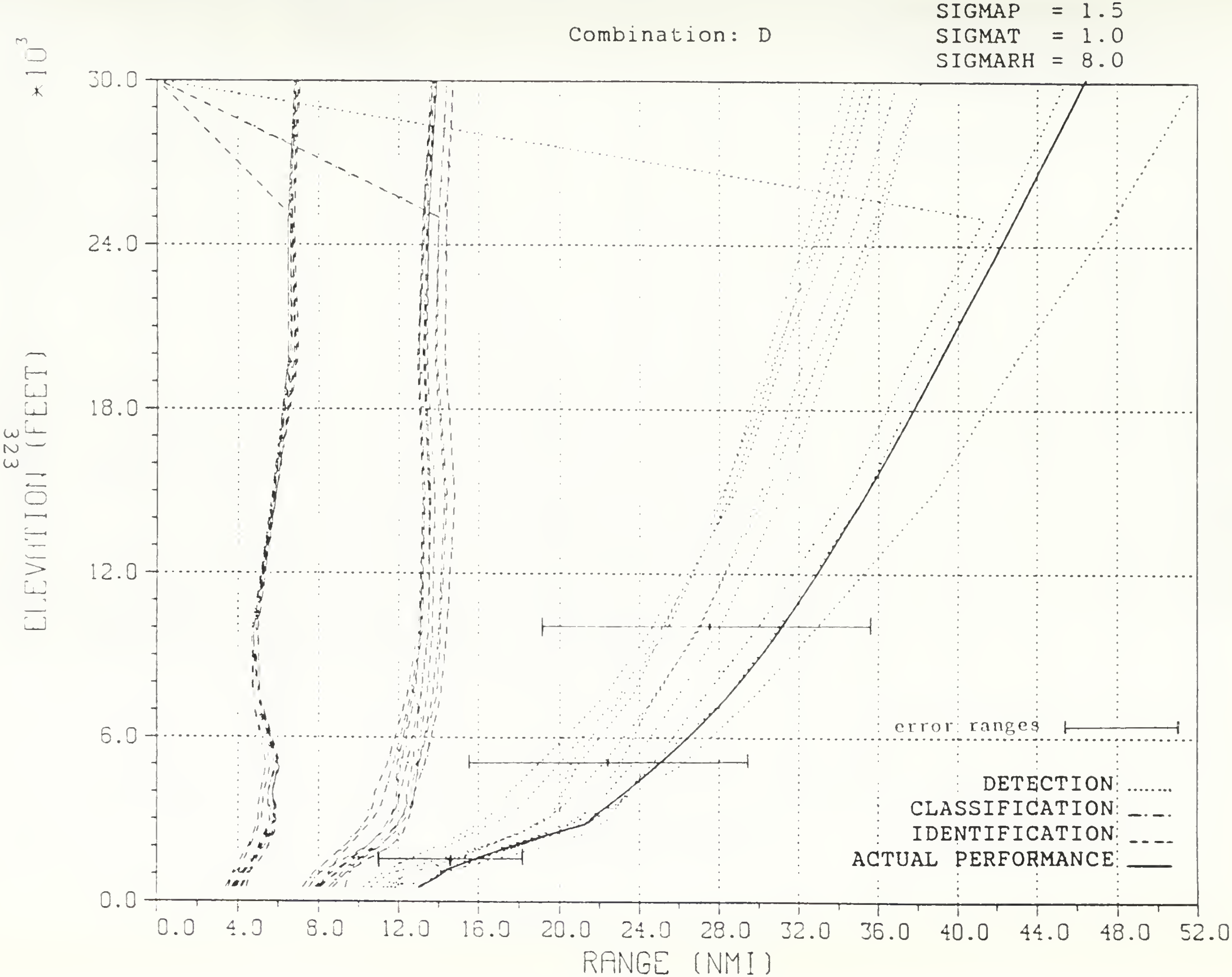
TARGET NUMBER 4
Combination: C
SIGMAP = 2.5
SIGMAT = 4.0
SIGMARH = 8.0
$\times 10^3$
ELEVATION (FEET)
30.0
24.0
18.0
12.0
6.0
0.0
0.0
4.0
8.0
12.0
16.0
20.0
24.0
28.0
32.0
36.0
40.0
44.0
48.0
52.0
RANGE (NMI)
error ranges
DETECTION
CLASSIFICATION
IDENTIFICATION
ACTUAL PERFORMANCE

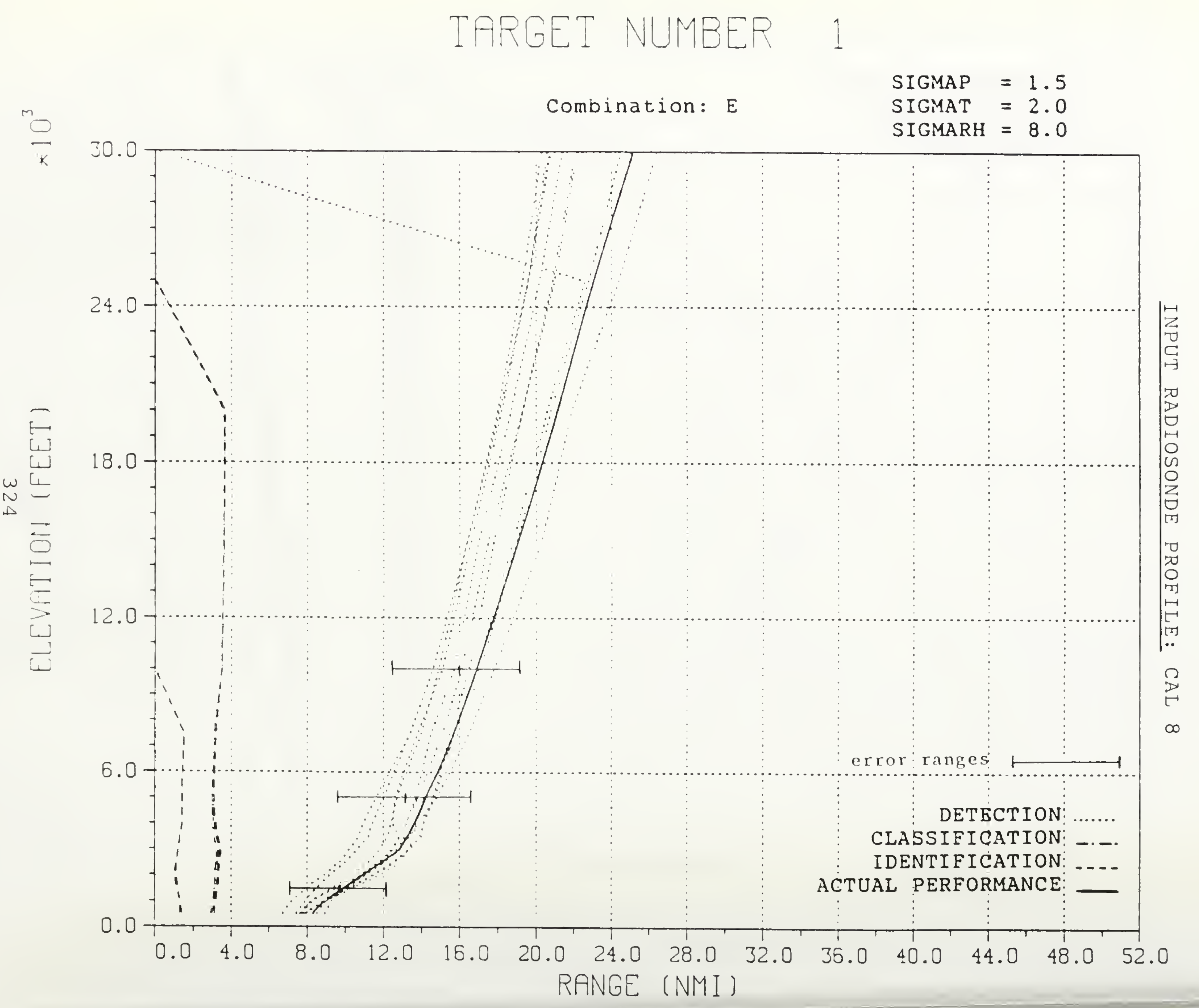

TARGET NUMBER 1
Combination: D
SIGMAP = 1.5
SIGMAT = 1.0
SIGMARH = 8.0
INPUT RADIOSONDE PROFILE: CAL 8
$\times 10^3$
ELEVATION (FEET)
30.0
24.0
18.0
12.0
6.0
0.0
RANGE (NMI)
0.0
4.0
8.0
12.0
16.0
20.0
24.0
28.0
32.0
36.0
40.0
44.0
48.0
52.0
error ranges
DETECTION
CLASSIFICATION
IDENTIFICATION
ACTUAL PERFORMANCE


TARGET NUMBER 2
Combination: D
SIGMAP = 1.5
SIGMAT = 1.0
SIGMARH = 8.0
ELEVATION (FEET)
$\times 10^3$
30.0
24.0
18.0
12.0
6.0
0.0
0.0
4.0
8.0
12.0
16.0
20.0
24.0
28.0
32.0
36.0
40.0
44.0
48.0
52.0
RANGE (NMI)
error ranges
DETECTION
CLASSIFICATION
IDENTIFICATION
ACTUAL PERFORMANCE

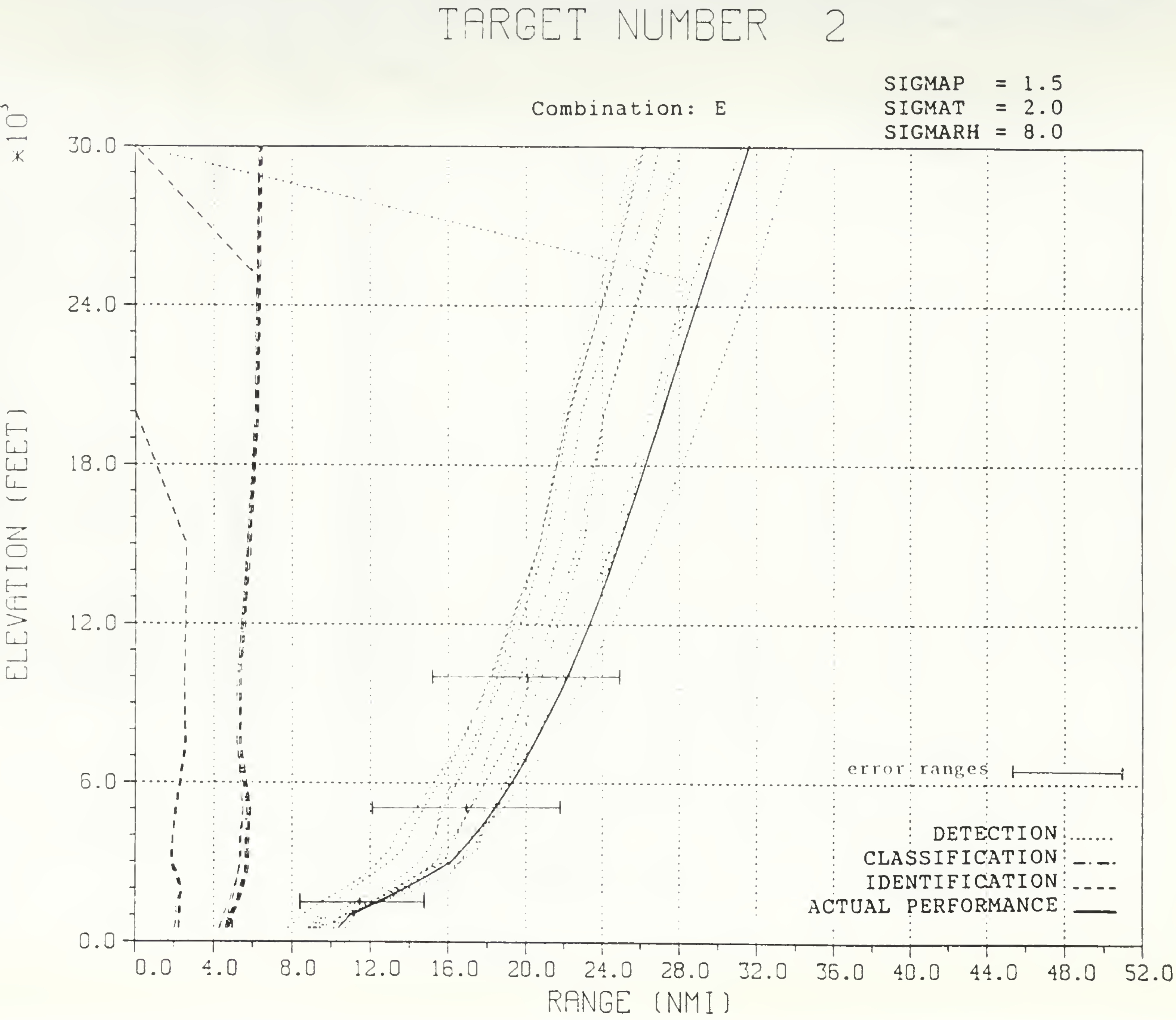

TARGET NUMBER 3
Combination: D
SIGMAP = 1.5
SIGMAT = 1.0
SIGMARH = 8.0
ELEVATION (FEET)
$\times 10^3$
30.0
24.0
18.0
12.0
6.0
0.0
0.0
4.0
8.0
12.0
16.0
20.0
24.0
28.0
32.0
36.0
40.0
44.0
48.0
52.0
RANGE (NMI)
error ranges
DETECTION
CLASSIFICATION
IDENTIFICATION
ACTUAL PERFORMANCE

TARGET NUMBER 4

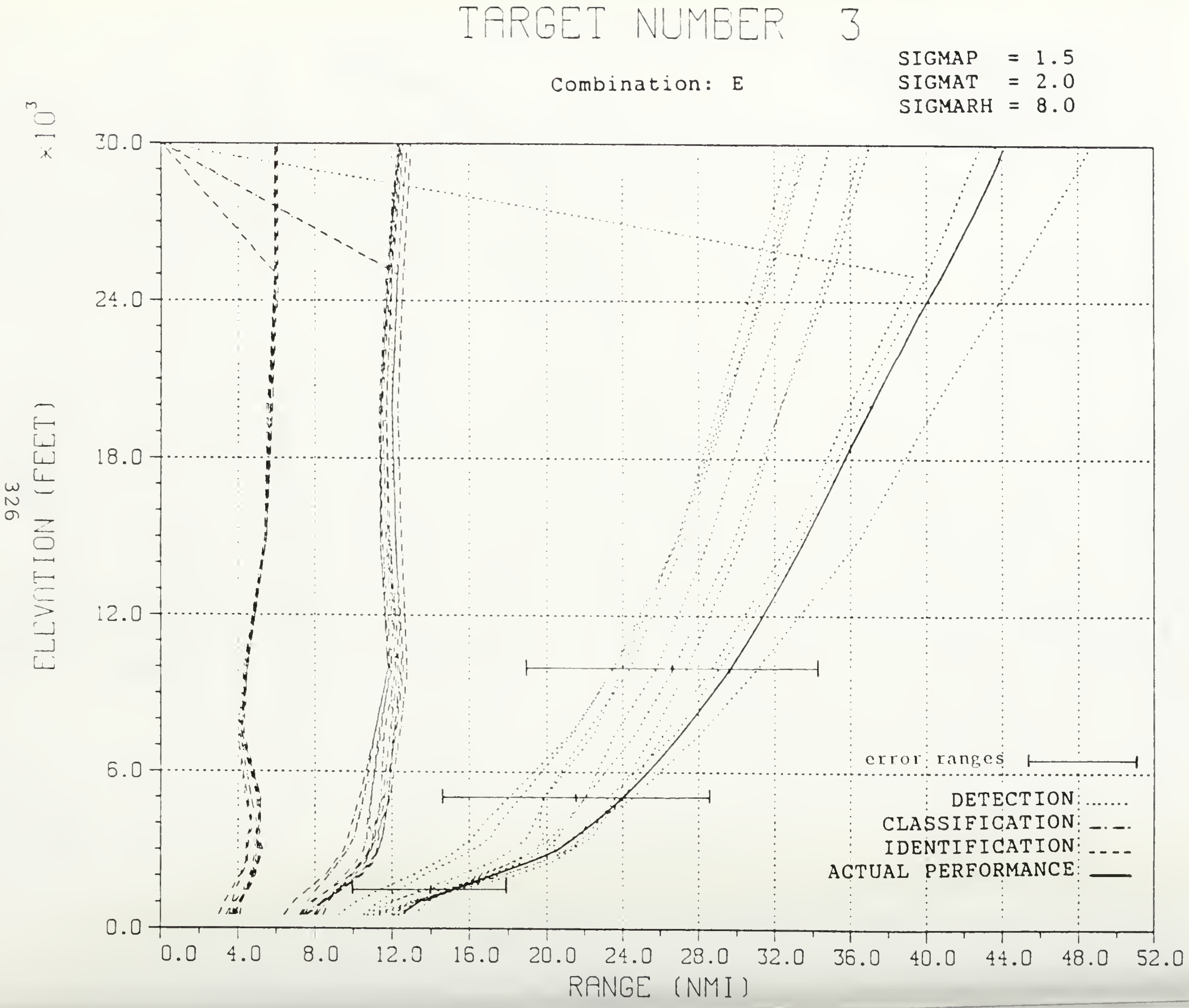




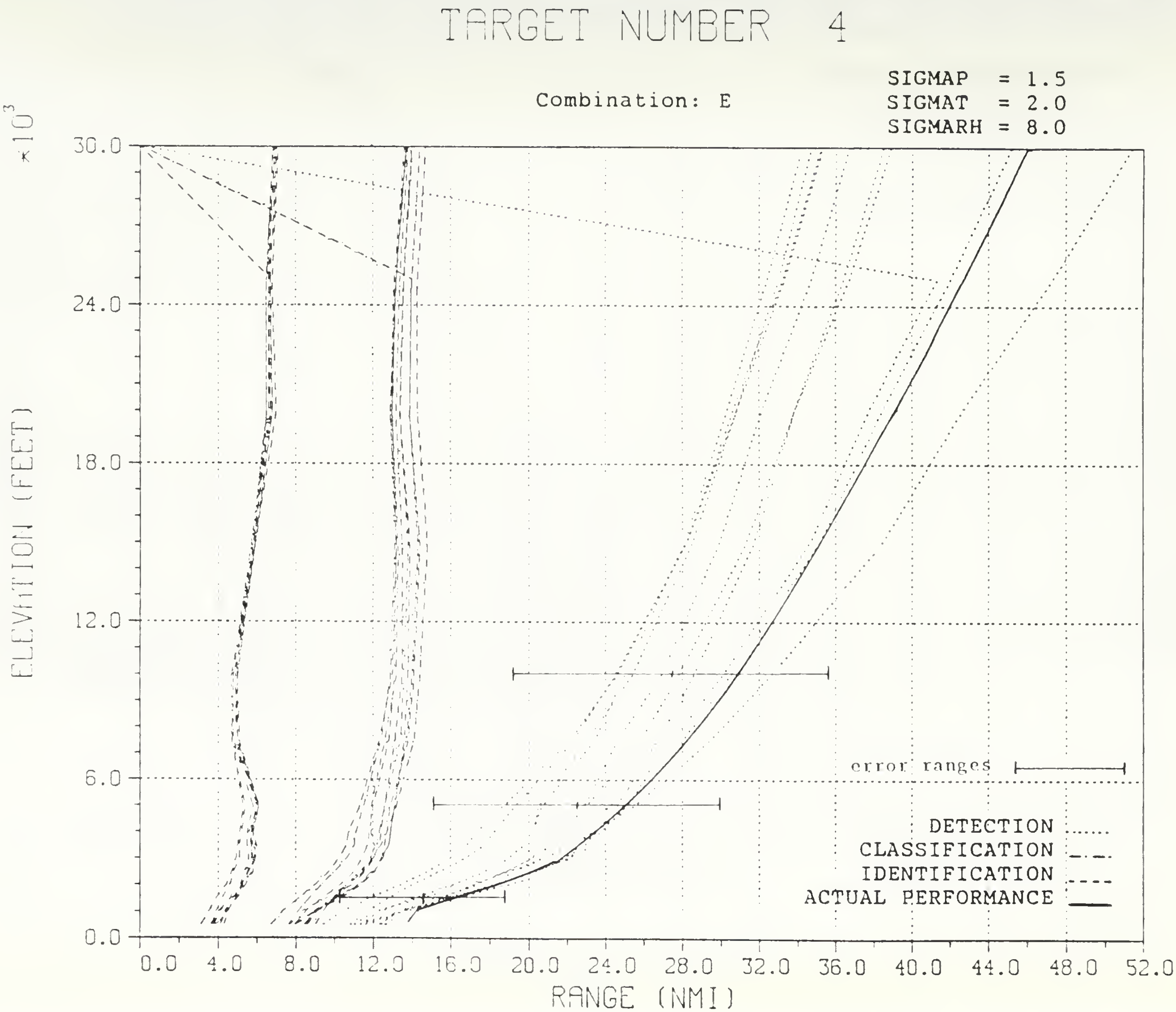
TARGET NUMBER 1
Combination: E
SIGMAP = 1.5
SIGMAT = 2.0
SIGMARH = 8.0
INPUT RADIOSONDE PROFILE: CAL 8
error ranges
DETECTION
CLASSIFICATION
IDENTIFICATION
ACTUAL PERFORMANCE
ELEVATION (FEET) $\times 10^3$
RANGE (NMI)
30.0
24.0
18.0
12.0
6.0
0.0
0.0 4.0 8.0 12.0 16.0 20.0 24.0 28.0 32.0 36.0 40.0 44.0 48.0 52.0



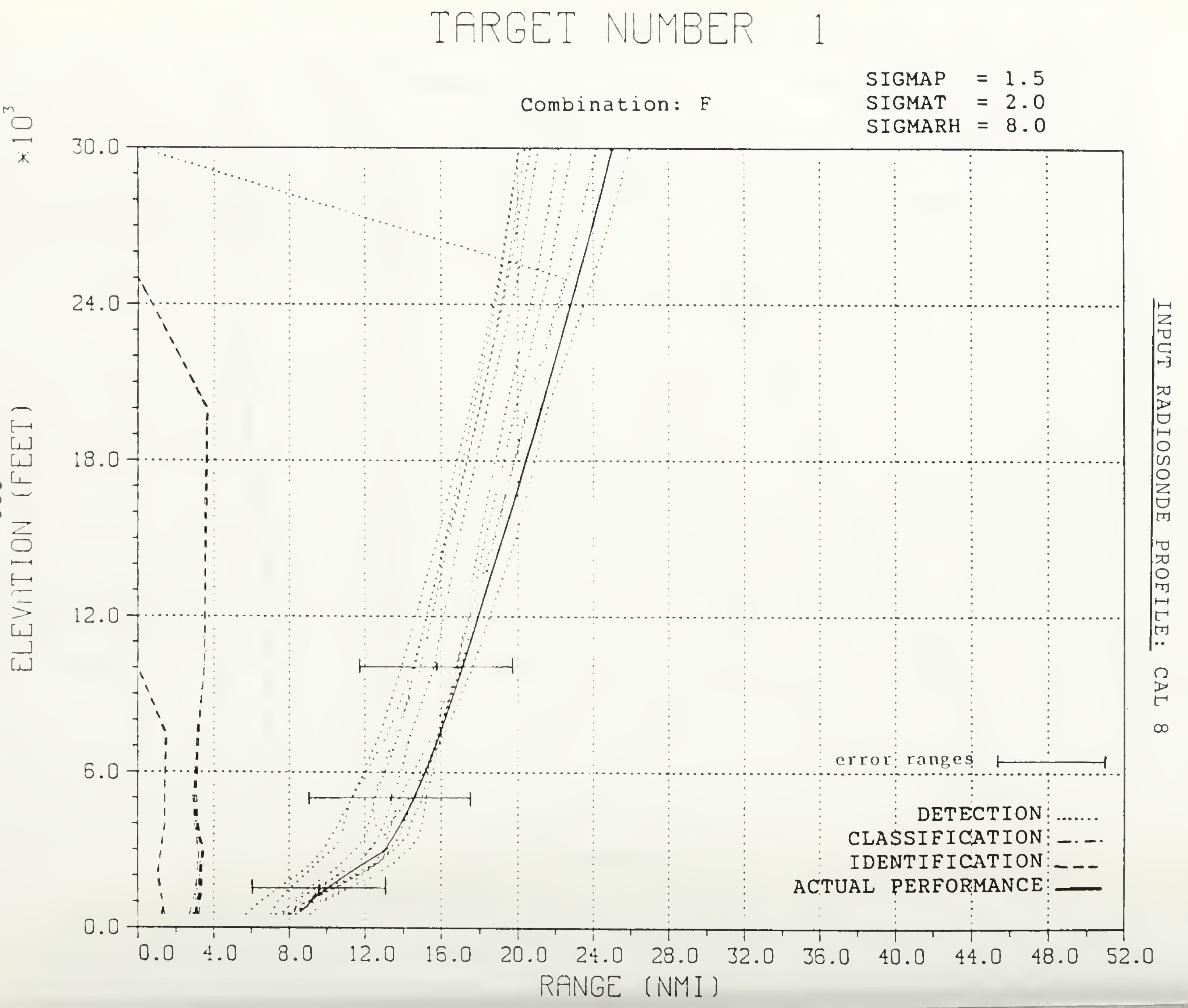
TARGET NUMBER 2
Combination: E
SIGMAP = 1.5
SIGMAT = 2.0
SIGMARH = 8.0
ELEVATION (FEET)
$\times 10^3$
RANGE (NMI)
error ranges
DETECTION
CLASSIFICATION
IDENTIFICATION
ACTUAL PERFORMANCE
30.0
24.0
18.0
12.0
6.0
0.0
0.0 4.0 8.0 12.0 16.0 20.0 24.0 28.0 32.0 36.0 40.0 44.0 48.0 52.0



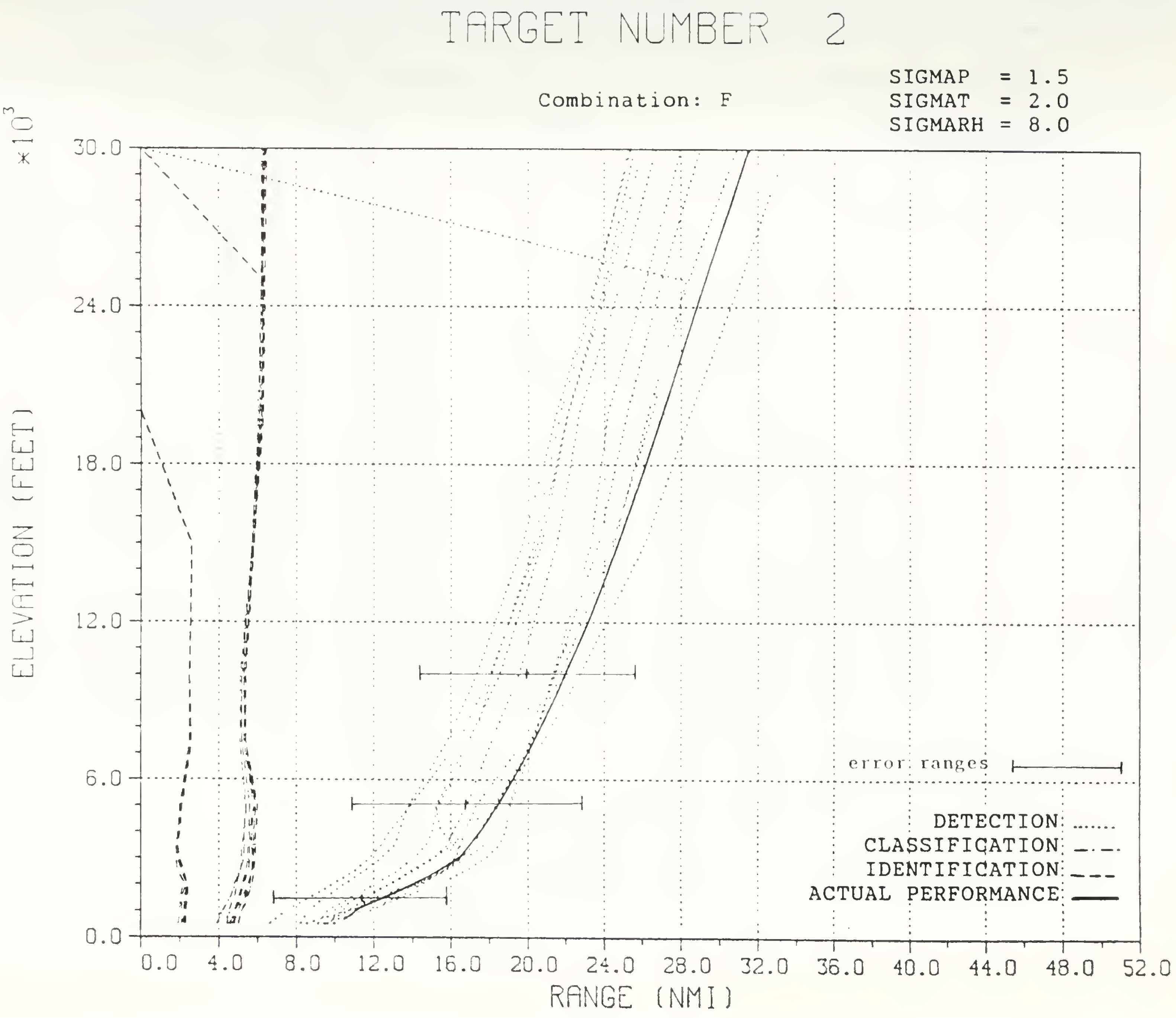
TARGET NUMBER 3
Combination: E
SIGMAP = 1.5
SIGMAT = 2.0
SIGMARH = 8.0
ELEVATION (FEET)
$\times 10^3$
RANGE (NMI)
error ranges
DETECTION
CLASSIFICATION
IDENTIFICATION
ACTUAL PERFORMANCE
30.0
24.0
18.0
12.0
6.0
0.0
4.0
8.0
12.0
16.0
20.0
24.0
28.0
32.0
36.0
40.0
44.0
48.0
52.0



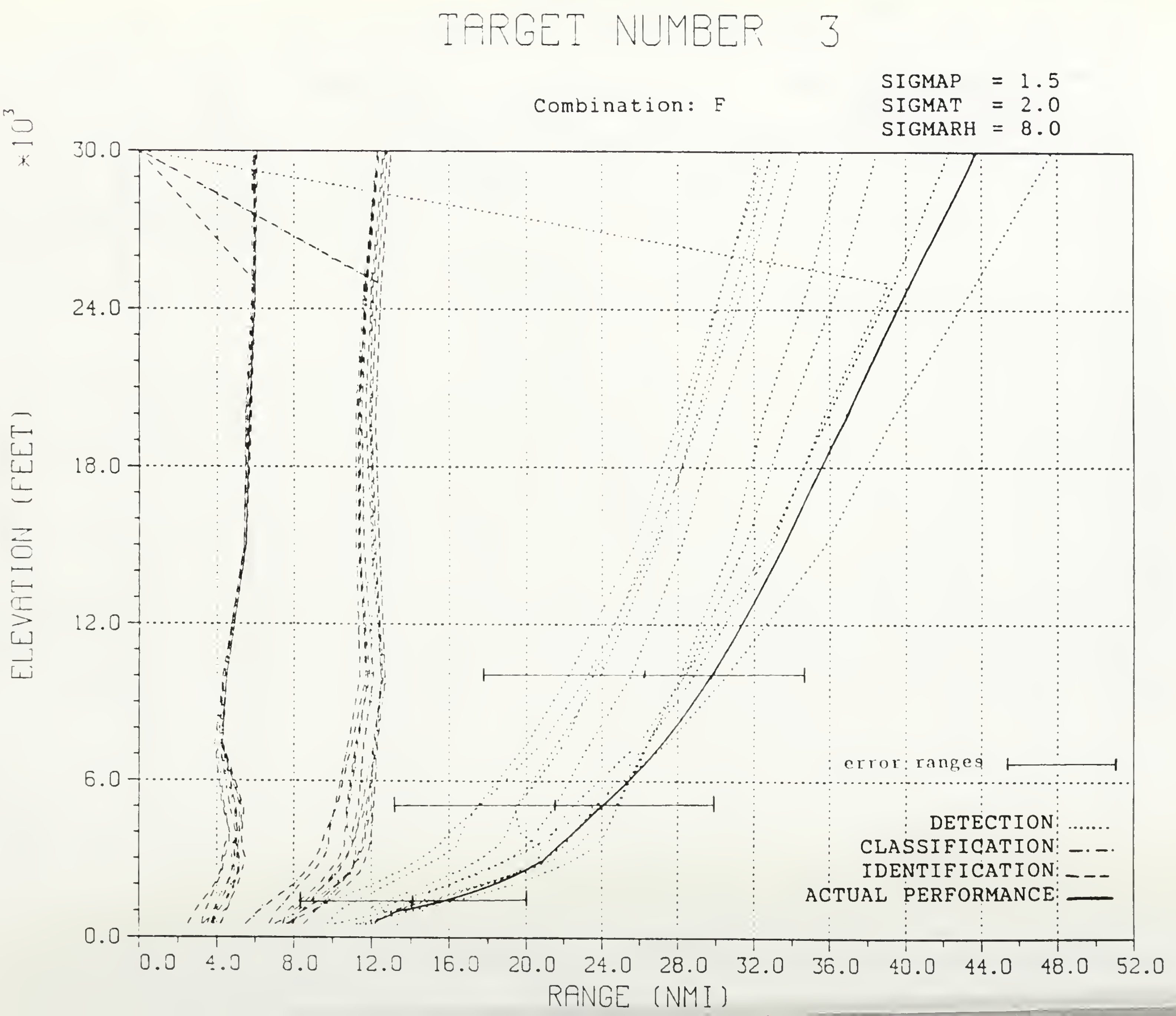
TARGET NUMBER 4
Combination: E
SIGMAP = 1.5
SIGMAT = 2.0
SIGMARH = 8.0
ELEVATION (FEET) $\times 10^3$
30.0
24.0
18.0
12.0
6.0
0.0
RANGE (NMI)
0.0
4.0
8.0
12.0
16.0
20.0
24.0
28.0
32.0
36.0
40.0
44.0
48.0
52.0
error ranges
DETECTION
CLASSIFICATION
IDENTIFICATION
ACTUAL PERFORMANCE

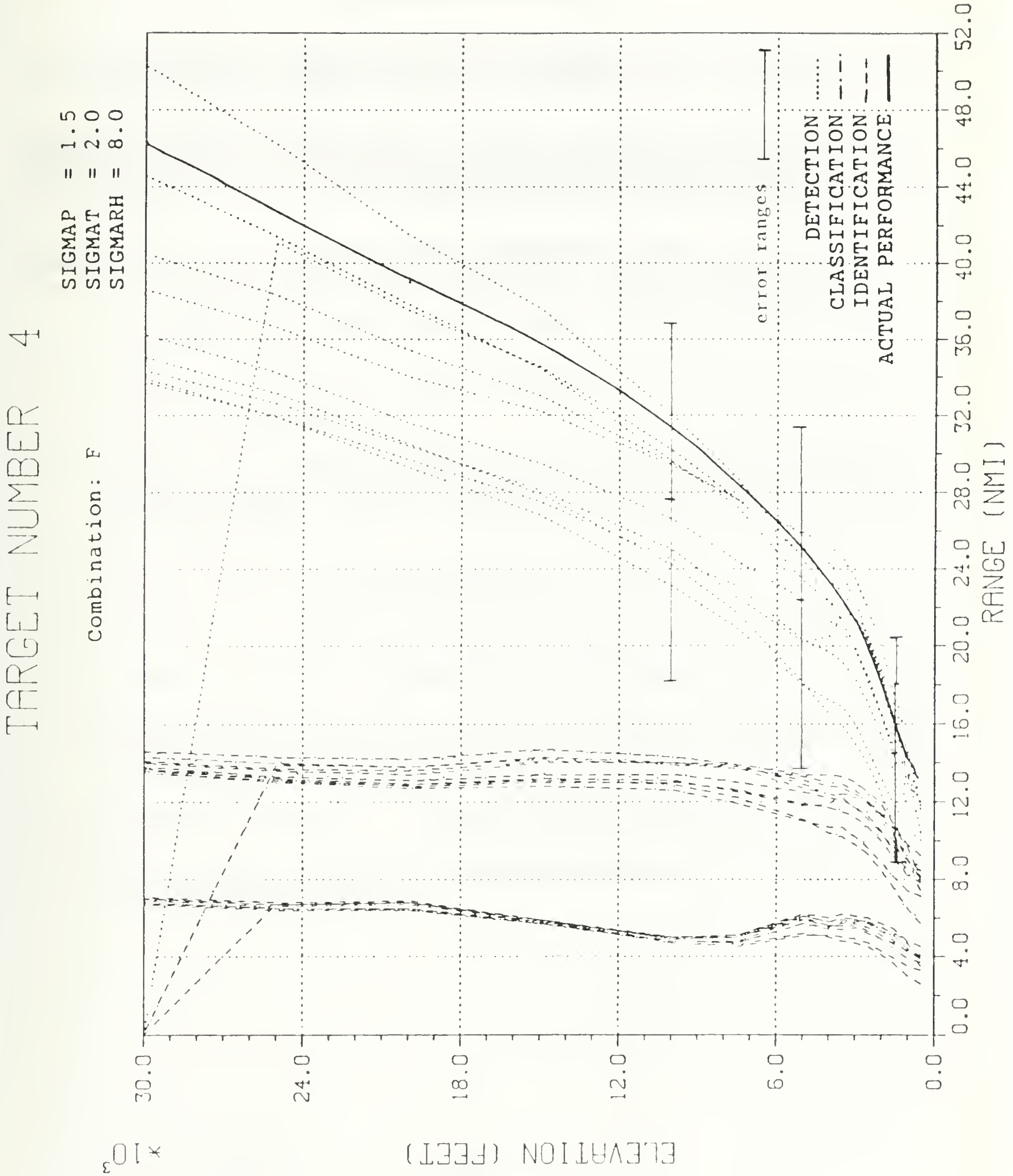


TARGET NUMBER 1
Combination: F
SIGMAP = 1.5
SIGMAT = 2.0
SIGMARH = 8.0
INPUT RADIOSONDE PROFILE: CAL 8
ELEVATION (FEET)
$\times 10^3$
30.0
24.0
18.0
12.0
6.0
0.0
RANGE (NMI)
0.0
4.0
8.0
12.0
16.0
20.0
24.0
28.0
32.0
36.0
40.0
44.0
48.0
52.0
error ranges
DETECTION
CLASSIFICATION
IDENTIFICATION
ACTUAL PERFORMANCE



TARGET NUMBER 2
Combination: F
SIGMAP = 1.5
SIGMAT = 2.0
SIGMARH = 8.0
error ranges
DETECTION
CLASSIFICATION
IDENTIFICATION
ACTUAL PERFORMANCE
ELEVATION (FEET)
*10^3
RANGE (NMI)


TARGET NUMBER 3
Combination: F
SIGMAP = 1.5
SIGMAT = 2.0
SIGMARH = 8.0
$\times 10^3$
ELEVATION (FEET)
30.0
24.0
18.0
12.0
6.0
0.0
0.0
4.0
8.0
12.0
16.0
20.0
24.0
28.0
32.0
36.0
40.0
44.0
48.0
52.0
RANGE (NMI)
error ranges
DETECTION
CLASSIFICATION
IDENTIFICATION
ACTUAL PERFORMANCE



TARGET NUMBER 4
Combination: F
SIGMAP = 1.5
SIGMAT = 2.0
SIGMARH = 8.0
error ranges
DETECTION
CLASSIFICATION
IDENTIFICATION
ACTUAL PERFORMANCE
RANGE (NMI)
ELEVATION (FEET)
×10^3
0.0
4.0
8.0
12.0
16.0
20.0
24.0
28.0
32.0
36.0
40.0
44.0
48.0
52.0
0.0
6.0
12.0
18.0
24.0
30.0

LIST OF REFERENCES

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Thesis
R2546 Reategui
c.1 The effect of random variations of radiosonde data on the predicted FLIR performance calculated by the program UFLR.